# PAYMENT SYSTEMS
# L6386, Section 1
# Spring 2006

## Supplementary Readings

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Columbia University School of Law

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# *O'Connor v. Clark*, 170 Pa. 318; 32 A.1029 (1895)

Replevin for a horse and wagon. Before PENNYPACKER, J.

At the trial evidence for the defendant tended to show that in September, 1890, John O'Connor, who was engaged in the business of keeping wagons for hire, had in his employ George Tracy, who had formerly been in business for himself as a piano mover. At this time, O'Connor was having a wagon built, and he directed the builder to print on the wagon the words "George Tracy, Piano Mover." The apparent object of this was to retain the business which Tracy had built up for himself. In April, 1891, Tracy attempted to sell the wagon at a bazaar but was not successful. He subsequently encountered the defendant, who agreed to buy the horse and wagon for $125, but before paying the money, he went with Tracy to a police station and a saloon, where Tracy was identified as the George Tracy whose name was on the wagon. There was evidence that Tracy was intoxicated at the time of the sale. The court charged in part as follows:

"[A]s I view this case there is very little in it for your determination. It is no doubt a hardship on the defendant that he should have paid his money away for something to which he got no title, but it appears from the undisputed testimony that this wagon belonged to the plaintiff's testator and that he was the owner of it, and that this man Tracy, without his permission, took it off and sold it, or attempted to sell it. Under these circumstances no title was conveyed to the defendant. If, therefore, you believe the testimony in this case, it is your duty to find a verdict for the plaintiff.]"

The defendant has submitted the following points for instruction:

"1. If the jury believe from the evidence that the plaintiff's decedent allowed Tracy, who sold the team to the defendant, to exercise such control and possession as to imply a right to sell, then the evidence must be for the defendant. Answer: What is meant by that is, no doubt, that the verdict must be for the defendant. Under the circumstances of this case I decline that point.

"2. If the jury find from the evidence that the plaintiff's decedent allowed Tracy to put his name on the wagon, and made no effort to efface it, and thereby allowed the defendant to be misled, their verdict must be for the defendant. Answer: I decline that point, having instructed you that the verdict ought to be for the plaintiff in the event of your believing the testimony."

Verdict and judgment for plaintiff for $275. Defendant appealed.

Errors assigned were (1-3) above instructions, quoting them.

DISPOSITION: Judgment reversed and a venire facias de novo awarded. . .

Opinion by Mr. Chief Justice STERRETT:

If there were nothing more in this case than the facts recited by the learned trial judge in the excerpt from his charge quoted in the first specification of error, the instructions therein given to the jury to find for the plaintiff, if they believed the testimony, would be substantially correct. The only facts of which this instruction is predicated are, (1) that the wagon in question was the property of John O'Connor the original plaintiff, and (2) that Tracy, without his permission, took it and sold it or attempted to sell it to the defendant as his own. But, these are not the only facts of which there was evidence before the jury. On defendant's behalf, it is contended that the testimony tended to prove, and the jury, if they had been permitted, would have been warranted in finding that defendant purchased the property in question from Tracy in the honest belief that he was in fact the owner thereof; that the name and occupation of Tracy, viz: "George Tracy, Piano Mover;" were on the wagon when he offered it for sale, and that fact was referred to as indicating his ownership of the property, etc., that Tracy being a stranger, defendant was specially careful to inquire and inform himself that the person, who was in possession of and offering to sell the wagon, was the George Tracy whose name and occupation were painted thereon; that Tracy's name and occupation were put upon the wagon with the knowledge of O'Connor, the original plaintiff, and himself, and by direction of the former, for the purpose of creating the impression and inducing the public to believe that the property belonged to Tracy, and was being used by him in his business, as a "piano mover," in which he had theretofore been engaged.

Without attempting to summarize the testimony relied on by the defendant, it is sufficient to say that it tends to prove substantially the state of facts above outlined, and especially that the original plaintiff, for his own gain and benefit, was a party to the arrangement whereby Tracy's name was put on the wagon for the purpose of misleading the public into the belief that the property was his, and that defendant, acting with due caution and in good faith, was thus misled as to the ownership of the property and purchased the same from Tracy.

While the soundness of the general rule of law that a vendee of personal property takes only such title or interest as his vendor has and is authorized to transfer, cannot for a moment be doubted, it is not without its recognized exceptions. One of these is where the owner has so acted with reference to his property as to invest another with such evidence of ownership, or apparent authority to deal with and dispose of it, as is calculated to mislead and does mislead a good faith purchaser for value. In such cases the principle of estoppel applies and declares that the apparent title or authority, for the existence of which the actual owner was responsible, shall be regarded as the real title or authority, at least so far as persons acting on the apparent title or authority and parting with value are concerned. Strictly speaking, this is merely a special application of the broad equitable rule that where one of two innocent persons must suffer loss by reason of the fraud or deceit of another, the loss should fall upon him by whose act or omission the wrongdoer has been enabled to commit the fraud. Assuming in this case that a jury under the evidence should find, as we think they would be warranted in doing, that such marks of ownership were placed on the property by direction of O'Connor, the real owner, as were not only calculated to deceive, but actually intended to deceive the public, and that by reason thereof, and without any fraud or negligence on his part, the defendant was misled into the belief that Tracy was the real owner, and he accordingly bought and paid him for the property, can there be any doubt, as

between the real owner and the innocent purchaser, that the loss should fall upon the former by whose act Tracy was enabled to thus fraudulently sell and receive the price of the property? We think not.

In Bannard v. Campbell, 55 N.Y. 456, and 58 Id. 73, — a well considered case involving substantially the same principle, — it was held that to create an estoppel by which an owner is prevented from asserting title to and is deprived of his property by the act of a third person, without his assent, two things must concur: "1st. The owner must have clothed the person, assuming to dispose of the property, with the apparent title to or authority to dispose of it. 2d. The person alleging the estoppel must have acted and parted with value upon the faith of such apparent ownership or authority, so that he will be the loser if the appearances to which he trusted are not real."

Without further consideration of the questions involved we think the testimony, to which reference has been made, tended to prove facts which, if found by the jury, would have brought the case within the principle of estoppel above stated, and that the learned judge, by the instructions above complained of, virtually withdrew the effect of that testimony from the consideration of the jury. In defendant's second point, he was requested to charge: "If the jury find from the evidence that the plaintiff's intestate allowed Tracy to put his name on the wagon, and made no effort to efface it and thereby allowed the defendant to be misled, their verdict must be for the defendant." This was refused with the remark that he had already instructed them that their verdict ought to be for the plaintiff in the event of their believing the testimony.

It follows from what has been said that the first and third specifications should be sustained. The second specification is dismissed. As presented, defendant was not entitled to an affirmance of the point therein recited.

Judgment reversed and a venire facias de novo awarded.

## Clayton P. Gillette, Alan Schwartz and Robert E. Scott, PAYMENT SYSTEMS AND CREDIT INSTRUMENTS (1996), pp. 1–11, 20–29.

### SECTION I. INTRODUCTION: MONEY SUBSTITUTES AND THE PURPOSES OF PAYMENTS LAW

The law of payment systems concerns the mechanisms by which those who obtain goods and services through consensual transactions pay for what they have received. The subject comes complete with a long and intricate history; an esoteric vocabulary that includes terms such as "negotiability," "midnight deadline," and "final payment;" and a dependence on technological developments that require constant accommodations in legal doctrine. All the systems that we discuss, however, share a set of basic characteristics that reveal both the function of payment systems and the legal themes that pervade any discussion of them. These functions include (a) facilitating the use of substitutes for payment in specie; (b) facilitating financing by smaller businesses; (c) creating a priority ranking among creditors; (d) creating a set of default rules to govern payment transactions among financial institutions; and (e) allocating risks related to the use of instruments among the parties to a transaction.

#### A. SPECIE SUBSTITUTES

The functions of payments law can be understood through the illustration of a familiar transaction. When you purchased your law books for this semester, you may have gone to a local bookstore and exchanged something with the bookseller for the texts you needed. Why would the bookstore have been willing to surrender valuable law books for whatever it was that you were willing to exchange? Possibly you gave the bookstore cash, or what is commonly called "money." Money is defined in the Uniform Commercial Code as "a medium of exchange authorized or adopted by a domestic or foreign government," § 1–201(24). Thus, the traditional parlance of commercial law, like common parlance, considers many forms of payment — such as checks — to be substitutes for money rather than money itself. In the economics literature, however, "money" has a broader definition: it consists of whatever is accepted in exchange for goods and services. In the economists' definition, governmentally approved or issued currency constitutes only one subset of money, called "fiat money." In this book, which is primarily concerned with Uniform Commercial Code concepts, we will use the term "money" in its narrow statutory sense. Many of the payment devices that we investigate are explicitly referred to as "money equivalents" or "money substitutes." Nevertheless, in order to comprehend what it means to have a substitute for money, narrowly defined, it is useful initially to consider the nature of money in its broad, economic conception. Sea shells, cocoa, cigarettes, and private notes have all satisfied the economic definition. In contemporary economies, most of these forms of payment consist of fiat money, issued by governmental decree, and have little intrinsic value. Thus, the bookstore would be willing to exchange law books for these forms of money only if it could subsequently exchange that money for something else of value equal to or greater than that of the law books. Perhaps the bookstore would subsequently be able to exchange

that money for more law books, or for the services of employees, or for a bottle of fine wine. Thus, in this basic transaction, money functions as a medium of exchange.

To see the importance of this function, consider what transactions would look like in the absence of a widely accepted medium of exchange. In such a barter economy, you could purchase this book only by trading something that the seller valued as much as she valued this book and that you valued no more than you valued the book. It is possible to arrange such transactions; perhaps the seller was looking for a shirt of just the size and color you were wearing and that you no longer needed. Nevertheless, arranging meetings between people with this "double coincidence [of wants]" is difficult. The problem of barter is avoided if large numbers of people are willing to settle on a conventional medium of exchange. That is, the seller is willing to accept money not in order to consume it, but to hold it until she is prepared to exchange it for something else, confident that other sellers will also accept the same form of money as payment. The broader the market of sellers willing to accept money in exchange for goods or services, the more acceptable money becomes as a medium of exchange. Presumably, all parties in an economy would benefit by having a common medium of exchange that avoids the difficult search costs inherent in a barter system. What is necessary is the creation of a single medium that can be readily accepted by all parties within the economy. When government designates a medium of exchange and requires its acceptance by those subject to the government's jurisdiction, it solves this coordination problem.

While use as a medium of exchange is important, it does not exhaust the functions of money, at least in its broad, economic sense. Money may also serve as a store of value that permits individuals to hoard or transport valuable property. To satisfy this function, money must be in some form that is durable, easily retained, and widely recognized as valuable. Thus, one would anticipate that money would take the form of gold, but not of ice cream or plastic trinkets. This is not to say that all stores of value are money; land, precious stones, and bonds may also serve this storage function. But money is typically one store of value, since creating money out of valuable commodities allows money to gain widespread acceptance.

The third function of money is to serve as a unit of account, that is, the unit in which prices are quoted and accounts are kept. Usually, a society's money is the unit of account, but not always. In high inflation countries such as Argentina, for example, dollars are the unit of account, but pesos are the medium of exchange. Thus, this function is not one that money necessarily plays, but one that it can play.

Finally, money can serve as a standard of deferred payment in long-term transactions, such as loans. The measure of what must be paid at the maturity of the loan is typically stated in terms of the society's money. Thus, if you did not currently have money, the bookstore may be willing to accept your oral promise to return the next day, but would reach an understanding that your payment at that time would be made in dollars. These functions of money are related. It is the fact that goods and services are universally available in return for a definite medium of exchange that makes it appropriate to measure their value in terms of that medium (the unit of account function). That fact in turn will make use of the medium an appropriate standard of deferred payments, provided that

there is enough confidence in the steadiness of existing valuation. See Arthur Nussbaum, Money in the Law 11–13 (1950).

At one time, the bookseller's willingness to exchange a book for money might have depended in part on the form that money took. Until quite recently, the substances that served as money had intrinsic value. For example, gold coins functioned as money for millennia. Gold is both beautiful and can be worked very finely, so a gold coin can be converted into jewelry without difficulty. When a society's specie has intrinsic value, the society is said to have a "commodity-money regime": everyone barters in fact but one good is universally acceptable. In the nineteenth century, governments began to issue paper money extensively. Paper money lacks intrinsic value, but, at least at an early point, issuers of paper promised to convert it into gold or silver on demand. Hence, (indirect) commodity-money regimes continued to exist.

Fiat money that takes the form of pieces of paper that are worthless in themselves cannot be converted into any intrinsically valuable substance. Citizens nevertheless use this paper as currency, at least if they are confident that the government is both willing and able to stand behind the money that it issues and will not issue so much of it as to create inflationary trends that cause sharp reduction in the value of the money. The fact that a government issues and stands behind its fiat money facilitates transactions in which one party exchanges goods or services for cash. But carrying substantial amounts of cash to make purchases can be awkward. The burden of cash certainly was greater prior to the creation of paper money or fiat money. The social historian Fernand Braudel recounts contemporary commentators of commercial life in medieval France: "He describes the old-fashioned sight of cash payments in Paris: 'On the tenth, twentieth and thirtieth of the month, from ten in the morning until midday, one meets porters bent double under the burden of bags of money. They run as if an enemy army was about to surprise the city, which proves that we have not yet succeeded in creating that happy political symbol [the bank note] to replace all this metal, which should be represented by a symbol not requiring to be moved, instead of being transferred from cashbox to cashbox.'" Fernand Braudel, 1 The Structures of Everyday Life 471 (1979). Even in a time when money takes less onerous forms, unique risks attach to the transportation of cash. Most obviously, if you lose the cash on the way to the bookstore, you will be unable to replace it simply by requesting more cash from the party who originally gave it to you. Thus, you may want to substitute something for cash, i.e., something more convenient and less risky, in the exchange for your law books.

Given the qualities that we have attributed to money, however, why would the bookstore accept any other form of payment? Perhaps the bookstore would do so if you could convince it that the other form of payment could itself be readily transformed into money. In effect, in return for bookstore's immediately allowing you to take books without delivering cash payment, you must persuade it that such payment is forthcoming in the near future. You might simply promise to return with money at some later point; but if the bookstore does not know you, they are unlikely to surrender the books on the strength of your oral promise alone. By making such promises enforceable and allowing parties to provide some form of security for these enforceable promises, the law facilitates the use of desirable money substitutes.

Consider three different ways in which legal doctrine might assist you in convincing the bookstore that cash payment will be forthcoming. First, you could provide a writing that evidences your obligation and in which you make an enforceable promise to satisfy that obligation. For instance, you might take out a piece of paper and write on it, "I promise to pay to the Bookstore, or anyone else they tell me to pay, $150 on October 1, 1996." If you jump through certain procedural hoops in filling out this paper, you will have created a note within the meaning of § 3–104 of the Uniform Commercial Code. This is a two-party instrument that creates a debtor-creditor relationship. If you later deny that you owe the bookstore money, this note will serve as evidence of your debt. You, as one who made a promise to pay, are the maker of the note. The bookstore, as promisee, is the payee of the note.

A second way in which you might convince the bookstore to deliver the books without receiving cash would be to give it the right to obtain money from someone who owes it to you. For most of us, the easiest such party to find is a bank. If you deposit money in a bank, the bank becomes your debtor. If you can convince the bookstore that you have money in the bank, perhaps the bookstore would be willing to exchange the books you need in return for an enforceable instruction in which you directed the bank to pay the bookstore an amount of money equivalent to the price of the books. For instance, you might deliver to the bookstore a writing that read, "Dear Bank, please pay the bookstore $150 of the money that you are holding for me." The Bank can honor your order to pay someone else. But note that you have authorized the Bank to pay only the bookstore. What if you are attending law school in Virginia and have your bank account in Nebraska? It is unlikely that the bookstore is going to send someone to Nebraska to collect the money. But if you can order your bank to pay someone authorized by the bookstore to receive that $100, you may be able to solve the logistical problem. Thus, you might direct your bank to pay $100 "to the order of' the bookstore. Now the bookstore can confer rights on a transferee of the order, perhaps the bookstore's own bank, to collect the debt on its behalf.

You may recognize this piece of paper as a draft, the most common contemporary example of which is a check. Unlike the note, the draft is from the start a three-party instrument. By writing out the draft, you have become the drawer. The bank, which holds your funds, is the drawee or drawee bank. The bookstore, which is to receive the funds at your direction, is the payee.

A third alternative for obtaining the books without delivering cash would be for you to convince the bookstore to accept someone else's promise to pay out of their own funds. Indeed, if the bookstore does not know you and is therefore concerned about your creditworthiness, it might prefer to have the promise of a more reputable individual. Presumably, any third party will be willing to make such a promise to the bookstore only if you have promised to repay that third party for any expense they have incurred on your behalf. Even if you could do that, it would be awkward to try to find some responsible person who could follow you around and make promises to assume your debts. So one would imagine that sellers, such as the bookstore, might pre-approve certain promisors, again assuming that legal doctrine allows the bookstore to enforce the obligation against the pre-approved promisors. If you can then prove to one of these promisors that you will repay them (plus pay a little

something for their efforts), they might be willing to give you some indication, acceptable to sellers, of their willingness to pay your debts.

You may recognize this scenario as culminating in a credit card transaction, whereby the issuer of the card promises to pay for goods and services purchased by the cardholder. Because the card issuer is more familiar with your credit history than the bookstore, the card issuer is willing to promise the bookstore payment on your behalf. Simultaneously, because the bookstore is familiar with the card issuer, or at least the network with which the card issuer (which may be a distant bank that is a member of a national credit card system), the bookstore is willing to release the books on the basis of the card issuer's promise to make a future payment.

These money substitutes have evolved out of commercial usages over centuries and different cultures. Braudel's capsule history suggests the range of societies in which commercial use of money substitutes predated the medieval precedents in Western systems:

> Notes and cheques between market traders and bankers were known in Babylon twenty centuries before the Christian era. There is no need to exaggerate the modernity of such systems to admire their ingenuity. The same devices were found in Greece and Hellenistic Egypt, where Alexandria became "the most popular centre of international transit". Rome was familiar with current accounts, and debit and credit figure in the books of the argentarii. Finally, all the instruments of credit — bills of exchange, promissory notes, letters of credit, bank notes, cheques — were known to the merchants of Islam, whether Muslim or not, as can be seen from the geniza documents of the tenth century AD, principally found in the Old Cairo synagogue. And China was using bank notes by the ninth century AD.

Fernand Braudel, supra, at 472. Contemporary use of these instruments involved both notes and drafts to create money substitutes. Both forms depended on the existence of a reputable depositary institution to hold "real" money that could be transferred through a written promise of the depositary or by the written order of a depositor to deliver the funds on deposit to the holder of the order. London banks and goldsmiths in the early eighteenth century, for instance, were frequently involved as parties to these money substitutes. The customers of the banks might deposit money or valuable commodities and receive in return notes issued in favor of the depositor. These notes would be made out either to "bearer" or to "order." In either case, the customer could transfer the notes to third parties in payment for goods or services. Alternatively, the banks would accept drafts drawn by the depositors requiring them to pay some of the deposit to the presenter. There was no important difference between a note signed by a banker which said: "I promise to pay John Smith or order, on demand, the sum of £100", and a draft signed by John Smith and addressed to Francis Child which said: "Pay to James Jones or order the sum of £100." F.A. Mann, The Legal Aspect of Money 16–17 (5th ed. 1992).

## B. FACILITATING FINANCING

Return to the transaction in which the bookstore takes your note in return for your law books. The effect of this transaction has been to place the bookstore in two roles, both as seller of books and as financer of the sale. The seller is a financer because a credit sale functions as a loan: the

buyer/borrower receives something of value today — the goods — and must later repay a sum that is composed of the price plus interest on the price; the seller/lender parts with something of value today and is repaid a larger value in the future.

Small firms often are willing to play the role of seller but not the role of financer. Nevertheless, the seller might be willing to finance the sale in the short term if it could quickly transfer the note to another party who is more willing to serve the financing function. For instance, the bookstore might be willing to accept your note if it were confident that it could assign — that is, sell — your obligation to a third party financer such as a bank for immediate cash. The bookstore then would have avoided the financing role. The willingness of the bank to assume the financing role, however, depends on its ability to enforce your note. You might have a legitimate concern that the bank will try to enforce your note even though the goods you obtained in the original exchange were not as promised (perhaps you did not notice that Chapter 5 was missing until mid-semester). Thus, all things being equal, you will not want the bank to be able to enforce the note against you whenever the seller would be unable to enforce it. On the other hand, the bank might legitimately fear that you will refuse to pay them by raising claims (whether real or fictitious) that you have against the original seller. Alternatively, the bank might fear that you will not pay because you have become insolvent. Each of these legitimate concerns translates into a cost. You presumably will pay less for a good if you have to pay the promised price even if the good turns out to be defective. The financer, on the other hand, will pay the seller less for your note (and hence the seller will charge you more for the good) if the financer's ability to collect from you is subject to your claims against the seller or your insolvency. Payments law facilitates financing if it recognizes the potential conflict between these interests and resolves the conflict in a manner that induces you to issue notes and third-party financers to accept them.

Money substitutes have long played an additional role in financing sales by allowing buyers of goods to make payments that would not be converted into specie until some later date. At least since medieval times, bills of exchange have been used as money substitutes to finance sales among distant merchants. A bill of exchange — the equivalent of the draft discussed above — consisted of an order by person A to a person holding funds for A directing that person to pay person B a sum from those funds. Professor James Rogers explains the development of this financing procedure.

> One of the ways of making profitable use of funds, in any location, is to lend them to another. Historians of medieval business practice, particularly Raymond de Roover, have shown that finance, rather than simply funds transmission, was a central element of early exchange transactions.
>
> According to de Roover, the antecedents of bills of exchange were the notarial exchange contracts of the era when much of the international trade of Europe was concentrated at the great fairs of Champagne. From the thirteenth century it was common for merchants to take up money in Italian cities in order to finance the purchase of goods which they were to take to the fairs of Champagne, agreeing to repay the money at the next fair in Champagne. These exchange contracts took a somewhat different form than the later-developed bills of exchange. They were formal instruments drawn up by a public notary, and the recipient of the money himself promised to repay it rather than directing another to do so. As European trade and finance developed beyond the stage of traveling merchants exchanging their wares at periodic fairs, the significance of exchange dealings as a

> financial technique greatly increased. The early form of finance by exchange contracts payable at the fairs was feasible only for merchants who planned to travel to the fairs where they would be in a position to repay the funds. With the evolution of the system of sedentary merchants with permanent representatives abroad, this method of finance became feasible for a far broader range of activities. Any merchant who had regular dealings through factors or other representatives could take up funds in his home location, giving a bill of exchange directing his representative in another location to repay the advance to the lender's representative in another location.
>
> Consider a hypothetical English merchant who has sold goods through his factor in Flanders. Suppose that there is someone else in Flanders who wishes to buy goods for export to England, but lacks sufficient funds. If the prospective buyer could borrow the necessary funds in Flanders, he could ship the goods to London for sale, and then be in a position to repay the loan in London. The needs of the two merchants are perfectly complementary. The English merchant has funds in Flanders and seeks a profitable means of returning them to London. The Flemish merchant seeks a source of finance for a shipment of goods from Flanders to London. The English merchant's factor in Flanders would deliver the money to the Flemish merchant, who would draw a bill of exchange to his factor in London, instructing him to repay the value to the English merchant. Needless to say, one would expect that the amount to be repaid in London would exceed the amount advanced in Flanders, the difference being the interest paid by the Flemish merchant on the loan.

James Steven Rogers, The Early History of the Law of Bills and Notes 36– 37 (1995).

### C. PRIORITY RULES

It is difficult to explain the role of financing law in ranking claims without an extensive discussion of how payment systems actually work. Thus, we here provide only a sketchy outline of these issues so you can look out for them later. Assume, for instance, that after you exchanged your personal check for your law books, you realized that you did not need one of them and sought to return it to the bookstore. When the bookstore refused to accept the return, you attempted to stop payment on the check, that is, you instructed the bank not to honor the check. If the check arrived at the bank before your instruction to stop payment, what is the obligation of the bank? Payments law dictates a response to this question. Because this transaction involves three parties, one of whom (the bookstore) is not a customer of the bank, the priority rule could not easily be handled by ex ante bargains between the parties. Thus, it is appropriate to have a legal doctrine that imposes a priority system on participants in the payments system.

### D. DEFAULT RULES

The difficulties that parties may have in bargaining justifies the imposition of some sort of rule, such as a priority rule. The desire to overcome those difficulties may also influence the substance of the particular rule that is selected. Assume, for instance, that a thief gave the bookstore your check and signed your name to the check in exchange for your law books. If the bank nevertheless paid the check and sought to charge your account in the amount of the check, you would likely object since you received no benefit from the exchange. Thus, we would have to determine how to allocate the loss between yourself and the bank, two innocent parties. It might even be possible for you and the

bank to agree in advance how such risks should be allocated. But that agreement will likely be costly to negotiate and will require exchange of significant information, such as the costs each party would suffer in order to detect forgeries or deter theft of checks. If we were relatively certain that a substantial majority of parties in this situation would choose one allocation rule over another, we could codify that rule as the one that governed whenever the problem arose, unless the parties explicitly agreed otherwise. The selected rule, in other words, would serve as a default rule for the parties. Although a priority rule may be a default rule, they are not necessarily the same. Because priority rules may affect those who are not parties to an agreement, these rules may be mandatory or immutable. Thus, they may differ from defaults, which are subject to alteration by the parties.

## E. RISK ALLOCATION

The last example also illustrates the function of payments law as a mechanism for allocating risks among parties to a transaction. This function follows from the role of a payment system as a money substitute. To the extent that private forms of payment are imperfect substitutes for money, they necessarily change some of the risks that attend the exchange of money itself, such as the risk of loss. Because payments law involves consensual transactions, one might initially believe that the role of law in effecting them is quite limited, except where bargaining between interested parties is very costly. But law can facilitate transactions that involve money substitutes by making the rights and obligations of the parties clear and by allocating the risks that accompany the use of any payment system in a manner that is both knowable by the parties and consistent with their own preferences.

To understand the need for law to play this risk allocation function, consider some variations on the transaction we have used as a model to this point. In each of the cases we have discussed (other than the case of the forged check), all parties are satisfied when the transaction goes as planned. You get your books, the bookstore collects from you, from the bank, or from the credit card issuer, and the credit card issuer, where appropriate, collects from you.

But things might go wrong. That is to say, each of these payment mechanisms creates certain risks of transactional breakdowns. For instance, a thief might steal your credit card and charge the books to your account. Under these circumstances, would your rights be the same as if a check or cash had been used? Or, assume that you charge your books on your credit card and realize when you return home that Chapter Five is missing from your book on payments systems. At that point, you no longer want to make the payment that was predicated on your receiving a complete book. But your complaint about the quality of the transaction is with the bookstore. Your obligation to pay is owed to the credit card issuer that has promised to pay the bookstore. Are you entitled to assert the claim you have with respect to the bookstore against the credit card issuer? If you had paid for the book with a check, could you countermand the order to your bank to pay the bookstore with funds from your account? If they have already done so, are you entitled to demand that the bank recredit your account?

Alternatively, if you have given the bookstore a promissory note and the bookstore loses it, do you still have an obligation to pay for the books on the date that the note matures? What if you pay the

bookstore, but it turns out that the bookstore has transferred the note to a third party and that transferee appears on the maturity date and demands payment from you? Will you be required to pay twice for the books?

These questions reveal that a central function of payments law, as is the case with virtually all of commercial law, is the regulation and allocation of risk. While risk is ubiquitous in all human relationships, it is of peculiar concern to those who engage in commercial transactions. Buyers and sellers, for example, enter into contractual relationships in order to assign risks of future contingencies, such as changes in the demand for particular goods or the possibility that the goods that are the subject of the contract will be destroyed. The Law of Sales offers the parties default rules based on several principles of risk reduction. Primary among these is the risk control criterion: assign the risk to the party whose performance will be thereby affected, since that party stands in the superior position to avoid the risk or insure against its occurrence. As the party with control over the details of performance, the performing party can take cost-effective precautions to reduce the risk of future contingencies that might impair the contractual performance. Similarly, debtors and creditors bear risks of insolvency and strategic behavior. The Law of Secured Transactions provides default rules that permit credit risks to be efficiently managed. In all of these commercial relationships, however, the parties face a further set of risks that we might designate as "market" risks. These are the risks inherent in effecting payment for goods and services including the extensions of credit that underwrite these transactions. The Law of Payment Systems, which is the subject of this book, provides rules that are designed to reduce these "market risks."

In order to understand the nature of these risks, and the ways that the law tries to accommodate them, it is useful to focus first on the currency substitutes and credit instruments that comprise the family of negotiable instruments. The notes and drafts discussed above evolved over time to solve some very vexing problems associated with commercial transactions, especially the twin problems of time and distance. Markets are valuable mechanisms for reducing many of the risks of commercial transactions. But in order for markets to develop, there must be concentrations of commercial actors to bid for goods and services. The separation created by time and distance thus impairs the ability of fully developed markets to form. In turn, commercial transactions that are conducted in "thin" markets carry greater risks than those transactions that occur in "thick" the markets. If payment and extensions of credit require the transfer of universal symbols of wealth, such as gold, the problems of physical transfer of tangible wealth will limit the reach of the relevant market. One of the innovations that developed early in the history of commerce to reduce these obstacles to commerce was the use of paper money and money substitutes. From there, the evolution of paperized rights further expanded the reach of market transactions. But the key insight to keep in mind as you study the various ingenious methods that have evolved to reduce market risks is that even the most successful mechanism cannot eliminate risks. A central function of the Law of Payment Systems, therefore, is to transform the various exogenous (or external) risks to presumably smaller endogenous (or internal) risks. Thus, for example, an exogenous risk that goods that are the subject of a contract will be destroyed or that inflation will dilute the value of a debt can be transformed by the use of a paper instrument into an endogenous risk that the paper is defective

in some respect, that is, the paper fails to meet the formal requirements necessary to convey rights. One of the central justifications for believing that shifting risks in this fashion is socially desirable is that endogenous risks are more subject to control and therefore can be reduced by cost-effective precautions. . . .

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## SECTION II. CHARACTERISTICS OF MONEY SUBSTITUTES

***Miller v. Race***, 97 Eng. Rep. 398 (KB. 1758).

It was an action of trover against the defendant, upon a bank note, for the payment of twenty-one pounds ten shillings to one William Finney or bearer, on demand.

The cause came on to be tried before Lord Mansfield at the sittings in Trinity term last at Guildhall, London: and upon the trial it appeared that William Finney, being possessed of this bank note on the 11th of December 1756, sent it by the general post, under cover, directed to one Bernard Odenharty, at Chipping Norton in Oxfordshire; that on the same night the mail was robbed, and the bank note in question (amongst other notes) taken and carried away by the robber; that this bank note, on the 12th of the same December, came into the hands and possession of the plaintiff, for a full and valuable consideration, and in the usual course and way of his business, and without any notice or knowledge of this bank note being taken out of the mail.

It was admitted and agreed, that, in the common and known course of trade, bank notes are paid by and received of the holder or possessor of them, as cash; and that in the usual way of negotiating bank notes, they pass from one person to another as cash, by delivery only and without any further inquiry or evidence of title, than what arises from the possession. It appeared that Mr. Finney, having notice of this robbery, on the 13th of December, applied to the Bank of England, "to stop the payment on this note:" which was ordered accordingly, upon Mr. Finney's entering into proper security "to indemnify the bank."

Some little time after this, the plaintiff applied to the bank for the payment of this note; and for that purpose delivered the note to the defendant, who is a clerk in the bank: but the defendant refused either to pay the note, or to re-deliver it to the plaintiff. Upon which this action was brought against the defendant.

The jury found a verdict for the plaintiff, and the sum of 21 1. 10 s. damages, subject nevertheless to the opinion of this Court upon the question — ' 'Whether under the circumstances of this case, the plaintiff had a sufficient property in this bank note, to entitle him to recover in the present action?"

* * *

Lord Mansfield now delivered the resolution of the Court.

After stating the case at large, he declared that at the trial, he had no sort of doubt, but this action was well brought, and would lie against the defendant in the present case; upon the general course of business, and from the consequences to trade and commerce: which would be much incommoded by a contrary determination.

It has been very ingeniously argued by Sir Richard Lloyd for the defendant. But the whole fallacy of the argument turns upon comparing bank notes to what they do not resemble, and what they ought not to be compared to, viz, to goods, or to securities, or documents for debts.

Now they are not goods, not securities, nor documents for debts, nor are so esteemed: but are treated as money, as cash, in the ordinary course and transaction of business, by the general consent of mankind; which gives them the credit and currency of money, to all intents and purposes. They are as much money, as guineas themselves are; or any other current coin, that is used in common payments, as money or cash.

They pass by a will, which bequeaths all the testator's money or cash; and are never considered as securities for money, but as money itself. Upon Ld. Ailesbury's will, 900 1. in bank-notes was considered as cash. On payment of them, whenever a receipt is required, the receipts are always given as for money; not as for securities or notes.

So on bankruptcies, they cannot be followed as identical and distinguishable from money: but are always considered as money or cash.

It is a pity that reporters sometimes catch at quaint expressions that may happen to be dropped at the Bar or Bench; and mistake their meaning. It has been quaintly said, "that the reason why money cannot be followed is, because it has no ear-mark:" but this is not true. The true reason is, upon account of the currency of it: it can not be recovered after it has passed in currency. So, in case of money stolen, the true owner can not recover it, after it has been paid away fairly and honestly upon a valuable and bona fide consideration: but before money has passed in currency, an action may be brought for the money itself. There was a case in 1 G. 1, at the sittings, Thomas v. Whip, before Ld. Macclesfield: which was an action upon assumpsit, by an administrator against the defendant, for money had and received to his use. The defendant was nurse to the intestate during his sickness; and, being alone, conveyed away the money. And Ld. Macclesfield held that the action lay. Now this must be esteemed a finding at least.

Apply this to the case of a bank-note. An action may lie against its finder, it is true; (and it is not at all denied:) but not after it has been paid away in currency. And this point has been determined, even in the infancy of bank-notes; for 1 Salk. 126, M. 10 W. 3, at Nisi Prius, is in point. And Ld. Ch. J. Holt there says that it is "by reason of the course of trade; which creates a property in the assignee or bearer." (And "the bearer" is a more proper expression than assignee.)

Here, an inn-keeper took it, bona fide, in his business from a person who made an appearance of a gentleman. Here is no pretence or suspicion of collusion with the robber: for this matter was strictly inquired and examined into at trial; and is so stated in the case, "that he took it for a full and valuable consideration, in the usual course of business." Indeed if there had been any collusion, or

any circumstances of unfair dealing; the case had been much otherwise. If it had been a note for 1000 1. it might have been suspicious: but this was a small note for 21 1. 10 s. only: and money given in exchange for it.

Another case cited was a loose note in 1 Ld. Raym. 738, ruled by Ld. Ch. J. Holt at Guildhall, in 1698; which proves nothing for the defendant's die of the question: but it is exactly agreeable to what is laid down by my Ld. Ch. J. Holt, in the case I have just mentioned. The action did not lie against the assignee of the bank-bill; because he had it for valuable consideration.

In that case, he had it from the person who found it: but the action did not lie against him, because he took it in the course of currency; and therefore it could not be followed in his hands. It never shall be followed into the hands of a person who bona fide took it in the course of currency, and in the way of his business.

The case of Ford v. Hopkins, was also cited: which was in Hil. 12 W. 3, coram Holt Ch. J. at Nisi Prius, at Guildhall; and was an action of trover for million-lottery tickets. But this must be a very incorrect report of that case: it is impossible that it can be a true representation of what Ld. Ch. J. Holt said. It represents him as speaking of bank-notes, Exchequer-notes, and million lottery tickets, as like to each other. Now no two things can be more unlike to each other, than a lottery-ticket, and a bank-note. Lottery tickets are identical and specific: specific actions lie for them. They may prove extremely unequal in value: one may be a prize; another, a blank. Land is not more specific than lottery-tickets are. It is there said, "that a delivery of the plaintiffs tickets to the defendant, as that case was, was no change of property." And most clearly it was no change of the property; so far, the case is right. But it is here urged as a proof “that the true owner may follow a stolen bank-note, into what hands soever it shall come.”

Now the whole of that case turns upon the throwing in bank-notes, as being like to lottery tickets.

But Ld. Ch. J. Holt could never say "that an action would lie against the person who, for a valuable consideration, had received a bank note which had been stolen or lost, and bona fide paid to him:" even though the action was brought by the true owner: because he had determined otherwise, but two years before; and because bank notes are not like lottery-tickets, but money.

The person who took down this case, certainly misunderstood Lord Ch. J. Holt, or mistook his reasons. For this reasoning would prove, (if it was true, as the reporter represents it,) that if a man paid to a goldsmith 500 1. in bank notes, the goldsmith could never pay them away.

A bank-note is constantly and universally, both at home and abroad, treated as money, as cash; and paid and received, as cash; and it is necessary, for the purposes of commerce, that their currency should be established and secured.

There was a case in the Court of Chancery, on some of Mr. Child's notes, payable to the person to whom they were given, or bearer. The notes had been lost or destroyed many years. Mr. Child was ready to pay them to the widow and administratrix of the person to whom they were made payable; upon her giving bond, with two responsible sureties, (as is the custom in such cases,) to indemnify

him against the bearer, if the notes should ever be demanded. The administratrix brought a bill, which was dismissed because she either could not or would not give the security required. No dispute ought to be made with the bearer of a cash-note; in regard to commerce, and for the sake of the credit of these notes; though it may be both reasonable and customary, to stay the payment, till inquiry can be made, whether the bearer of the note came by it fairly, or not.

Lord Mansfield declared that the Court were all of the same opinion, for the plaintiff; and that Mr. Just. Wilmot concurred.

Rule - That the postea be delivered to the plaintiff.

NOTES

**1. Bank of England.** Miller v. Race did not involve the theft of money. Rather, it involved notes issued by the Bank of England. At the time Miller arose, the Bank of England was a private corporation, the notes of which were redeemable in hard coin. Within a short period of its founding, the Bank of England, through issuance of its notes, had become a major source of "bank money." Since redemption was reliable, creditors were willing to accept the notes, so they passed in commerce in payment for debts. These features allowed Lord Mansfield to conclude that the Bank's notes had the "credit and currency of money." Other banks also operated at this time, but they were primarily depositary institutions rather than institutions of issue and circulation. The holder of a note of one of these banks might be more apt to redeem it, rather than to negotiate it to some other party, since the issuing bank was less creditworthy than the Bank of England. By late in the eighteenth century, notes of the Bank of England were essentially the exclusive source of paper money in commercial London. See John Kenneth Galbraith, Money: Whence It Came, Where it Went 34 (1975). Under the Currency and Bank Notes Act of 1954, all Bank of England notes are legal tender in England and Wales, but in Scotland and Northern Ireland only Bank of England notes of less than £5 are legal tender. See F. A. Mann, The Legal Aspect of Money 42–43 (5th ed. 1992).

Subsequent decisions by Lord Mansfield applied the principles of Miller in cases involving instruments other than bank notes. See Grant v. Vaughan, 3 Burr. 1516 (1764)(bona fide holder of stolen bearer draft could enforce it); Peacock v. Rhodes, 2 Doug. 633 (1781) (bona fide holder could enforce bill of exchange indorsed in blank).

**2. Bank Notes and Risk.** Consider the banknote at issue in Miller. It had originally been issued by the Bank of England to William Finney, presumably in exchange for a deposit in an equivalent amount. Finney presumably owed a debt in that amount to Odenharty, to whom Finney was sending the note at the time of the robbery. Why would Finney want to use this device in order to satisfy his debt to Odenharty? Why would Odenharty accept the banknote in satisfaction of the debt? Note the characteristics that distinguish the banknote from other writings. The banknote is, according to Lord Mansfield, not simply a document for a debt. Rather it "pass(es) from one person to another as cash, by delivery only and without any further inquiry or evidence of title, than what arises from the possession." But, of course, a note issued by a private party is not money that has been approved as

a medium of exchange by a government. To see the significance of these characteristics, consider a document that evidences a debt, such as a contract to repay money. Assume, for instance, that the Bank of England had borrowed money from Finney and entered into a contract that read as follows: "The Bank of England, in consideration of a loan of 21 l. 10 s., agrees to repay that sum to William Finney on his request." For reasons that will become clear, the form of this document is such that it does not qualify as a negotiable instrument. If this contract were stolen and transferred to a third party, that third party would not be entitled to collect the money due from the Bank to Finney. Finney might be able to assign his right to payment from the Bank, but that would require certain formalities dictated by contract law; the right to payment would not "pass ... by delivery only and without any further inquiry or evidence of title." If Finney was the true owner of the bank note and the common law principle that only a true owner could be paid governed the case, then Finney would have had the right to enjoin payment to anyone but himself or the person he directed to be paid. Lord Mansfield recognized that a system of fiat bank money would be very costly to operate under such common law principles: "it is necessary, for the very purposes of commerce, that their [the banknotes'] currency should be established and secured." Thus, the Bank could pay anyone who presented one of its notes.

Why would any of the parties prefer a writing that operates as "cash" and that passes rights "by delivery only"? Assume that Finney had ordered some goods from Odenharty. If the contract between the parties requires Finney to pay only after the goods are finished, Odenharty takes the risk that Finney will not need the goods at the time of performance or will find the goods nonconforming and will refuse to pay. These risks, however, can be transferred to Finney if Odenharty takes either cash in advance or a right that is closer to a cash equivalent than a mere contractual right to receive payment. In each of these situations, the risk of unnecessary or nonconforming goods is shifted back to Finney, since Finney cannot prevent the possessor of the cash or cash equivalent from obtaining payment. Finney will have to bear the burden and cost of proving noncompliance with the contract in order to recover funds from Odenharty.

Next, assume that there are no defects in the transaction between Finney and Odenharty, i.e., Finney is pleased with the goods he receives and Odenharty receives the banknote as payment. If Odenharty desires to engage in a subsequent transaction in which he acts as buyer, he may wish to avoid the risks of obtaining and conveying money to his seller. If his seller is willing, Odenharty may be able to transfer Finney's note to the seller, thereby reducing the costs and risks of entering into the subsequent transaction. Consider the circumstances under which Odenharty's seller would be willing to accept Finney's note in satisfaction of Odenharty's obligation to pay. Would the seller be concerned about the conditions under which the Bank of England had to repay Finney? about the contract between Odenharty and Finney? about the ability to obtain some other form of payment from Odenharty should the Bank of England fail to pay as expected? If we want to facilitate the transaction between Odenharty and his seller, what legal risk allocations should govern the transfer of Finney's note between these parties?

**3. Risk of Loss of the Instrument.** If Miller can obtain the funds represented by the note from the Bank of England, presumably the Bank of England no longer owes those funds to Finney. Unless

this had been the understanding, there would have been no reason for Finney to ask the Bank "to stop the payment of this note." Nevertheless, Finney has not paid his debt to Odenharty. Should Odenharty bear the risk that the banknote would be stolen, so that Finney's debt is now discharged, or should Finney bear that risk, so that he must pay Odenharty, notwithstanding that he cannot draw again on the 21 1. 10 s. represented by the note?

**4. The Evolution of Commercial Practices and Commercial Law.** *Miller v. Race* concerns a relatively simple transaction, a promissory note to repay funds. But the multiple signatures on the note also suggests that money substitutes were circulated among parties who were unrelated to the original transactions from which the instruments were generated. The use of instruments generated by one transaction as a payment device in unrelated transactions is apparent from evidence of their frequent transfer. In Peacock v. Rhodes, 99 Eng.Rep. 402 (K.B. 1781), Lord Mansfield held that the holder of an indorsed bill of exchange who took the instrument in the course of trade and in good faith could enforce it against the drawer. The facts of the case reveal the travels of the instrument:

> The bill was drawn at Halifax, on the 9th of August, 1780, by the defendants, upon Smith, Payne, & Smith, payable to William Ingham, or order, 31 days after date, for value received. It was indorsed by William Ingham, and was presented by the plaintiff for acceptance and payment, but both were refused, of which due notice was given by the plaintiffs to the defendants, and the money demanded of the defendants. The plaintiff, who was a mercer [a dealer in textiles, Ed.] at Scarborough, received the bill from a man not known, who called himself William Brown, and, by that name, indorsed the bill to the plaintiff, of whom he bought cloth, and other articles in the way of plaintiffs trade as a mercer, in his shop at Scarborough, and paid him that bill, the value whereof the plaintiff gave to the buyer in cloth and other articles, and cash, and small bills. The plaintiff did not know the defendants, but had before, in his shop, received bills drawn by them, which were duly paid. William Ingham, to whom the bill was payable, indorsed it; John Daltry received it from him, and indorsed it; Joseph Fisher received it from John Daltry; and it was stolen from Joseph Fisher, at York (without any indorsement or transfer thereof by him,) along with other bills in his pocket-book, whereof his pocket was picked, before the plaintiff took it in payment as aforesaid.

Multiple transfers indicate that instruments were used to facilitate commercial transactions at a time when developments in transportation and industry made exchanges across boundaries more feasible. Again, Professor Rogers provides the classic example from which these practices grew:

> In the earliest form of trade organization, making returns meant simply carrying back the fruits of one's trading journeys. Merchants bought goods in one place, took them to a foreign market, sold them, bought other goods with the proceeds, and then returned home to sell the goods acquired in the foreign market. Having no representatives in other locations nor any international banking system to assist them in making returns, traveling merchants sought to sell their goods and quickly acquire a return cargo, either by direct barter or by purchasing the return goods with the money proceeds of the sale of their goods.
>
> By the thirteenth century, a new form of trade organization began to develop in which "sedentary merchants" conducted their affairs through a more complex organizational structure. In the simplest form, the merchant would entrust the goods to an agent or employee who traveled with the goods and

arranged for their sale and the purchase of a return cargo. In a more developed form, the merchant had representatives who resided permanently in the foreign market.

The merchant could then ship the goods to the foreign market on consignment to an agent who arranged for the sale of the goods and the purchase of the returns. As Braudel has noted, "by the end of the sixteenth century, the commission system ... was tending to become general. All merchants — in Italy or in Amsterdam for instance-worked on commission for other merchants, who did the same for them."

Bills of exchange had their origins in a new mechanism of making returns that became possible with the transmission to the regime of the sedentary merchant and the development of the commission merchant system. Suppose, for example, that an Italian merchant shipped spices from Italy to his representative in Flanders. Once the agent in Flanders had sold the spices, he would have funds in Flanders due to his principal in Italy. Suppose that another merchant in Flanders was in the business of buying English wool and shipping it to Italy. Once the Flemish wool merchant's agent in Italy had sold the goods, he would have funds in Italy due to his principal in Flanders. The problem of making returns could be solved by having the Italian spice merchant's factor in Flanders pay money to the wool merchant, and the Flemish wool merchant's factor in Italy pay money to the Italian spice merchant. In effect, the Flemish wool merchant's outward cargo would have become the Italian spice merchant's return cargo, and vice versa.

The English economic historian Eileen Power gives a lucid illustration of how such exchange transactions were used by the English Merchants of the Staple, who sold English wool at the markets in Flanders,

> The Staplers could transfer their money home ... by bills of exchange drawn upon the London offices of merchants who imported on a large scale, and this was the method they habitually employed; ... The Staplers had Flemish money in Calais, where they sold, and in the marts, where they collected their debts; they wanted English money in the Cotswolds and London where they bought. The mercers had English money in London, where they sold, and needed Flemish money at the marts, where they bought. So the Stapler on the continent delivered his money to a mercer and received a bill of exchange payable at a future date in London in English money.

An exchange transaction of this form would have involved four parties. In Flanders, the Stapler (A), would deliver money to the mercer (B). B would draw a bill of exchange on his representative in London (C), making it payable to the Stapler's representative in London (D). A would send the bill to D in London, who would present it to C for payment, thereby completing the transaction. In modern terminology, the parties would be described by reference to their role on the bill: B would be called the drawer, C the drawee, and D the payee. A, who would not have been a party to the bill itself, would be referred to as the remitter.

James Rogers, The Early History of the Law of Bills and Notes 32–34 (1995). In this example, the bill of exchange was used only to settle accounts among the immediate parties to the underlying transaction. With time, however, commercial parties recognized that bills could serve as a payment device independent of the underlying exchange contract. As Rogers notes, by the eighteenth century "the fact that bills were transferable significantly facilitated their use as payment media. A country merchant or manufacturer would probably find that his local suppliers or creditors were willing to take bills on London in payment whether or not they themselves had any immediate need for London funds, since they could indorse the bill to someone else who might have need of London

funds. At each stage on its path toward London, it could be used to settle a local transaction." Id. at 112. Case reports confirm that these bills of exchange, and later variants such as letters of credit issued by American mercantile bankers, were not always presented directly to the drawee for payment. Instead, they circulated in commerce as a supplement to the official currencies, passing from hand to hand in a long series of transactions.

Professor Gilmore has pointed out that the use of bills and notes as mercantile currency died out in the latter half of the nineteenth century, as governments engaged in currency reform and bank credit developed. See Grant Gilmore, Formalism and the Law of Negotiable Instruments, 13 Creighton L. Rev. 441, 452 (1979). Thus, multiple transfers of a given instrument among strangers became rare. Certainly it would be rare to have a personal check today go through as many transactions as the facts of Peacock v. Rhodes indicate was common at the time the modern law of negotiable instruments began its evolution. This development raises questions about whether legal doctrines that governed a system dominated by instruments that circulated should also apply to a system in which holders of instruments are more typically involved in the transactions that gave rise to their issue. We will discuss those questions directly when we address the concept of negotiability. See Chapter Two.

More generally, changes in the use of instruments suggest that commercial contexts in which commercial paper is utilized constantly evolve. Presumably, the law that governs such instruments should also evolve in light of new commercial practices. The drafters of the Uniform Commercial Code anticipated that technological and economic developments would generate new commercial conventions, and thus included as one of the underlying purposes and policies of the UCC the "continued expansion of commercial practices through custom, usage and agreement of the parties." § 1–102(2)(b).

Recent practices suggest how instruments may be adapted to new commercial uses. In one variation, loan participations, multiple lenders take participatory shares in a loan generated by an originating lender to accommodate a customer whose financial needs cannot be met by that lender alone. The originating lender, therefore, will transfer a portion of the loan to other participants. The borrower may have no knowledge that the loan has been syndicated. The loan itself will typically be evidenced by a negotiable promissory note or notes. See W. Homer Drake, Jr. & Kyle R. Weems, Mortgage Loan Participations: The Trustee's Attack, 52 Am. Bank. L.J. 23 (1978). A second development, commencing in the early 1980's, involved the "securitized loan". Through securitization, large numbers of bank loans or other financial claims are transformed into marketable~ securities. This process typically consists of a lending bank pooling a group of loans and using them as collateral for certificates held by investors. The lending bank will often continue to service the loans, but the underlying interest and principal payments are passed along to certificate holders. See e.g., Jack W. Aber, Securitization in the Retail Banking World, J. Retail Banking, Spring 1988 at 5. A principal virtue of securitization is that smaller firms have access to the capital market because their loans are combined in an asset pool with loans of other firms. Thus, these firms can obtain capital at relatively low rates, rather than be restricted to banks or finance companies, where funds are relatively costly. See, e.g., Steven L. Schwarcz, The Parts are Greater

than the Whole: How Securitization of Divisible Interests Can Revolutionize Structured Finance and Open the Capital Market to Middle–Market Companies, 2 Colum. Bus. L. Rev. 139 (1993).

The debtor on any individual loan is typically unaware that evidence of his or her indebtedness has been included in a securitized pool. Securitized asset pools may trade in secondary markets as investment vehicles. Investors in such pools obviously take certain risks, including the risk of nonpayment by the debtors on the loans within the pool. Where the underlying notes are negotiable, the relationship between the debtor and the ultimate obligors on the notes is quite similar to the relationship among strangers that characterized mercantile dealings in commercial paper a century and a half ago. Since these loans constitute credit instruments rather than the payment instruments that circulated in mercantile markets, it does not necessarily follow that the law that applied to the latter should apply equally to the former. It may be that the concepts of negotiability and its attendant legal implications are more important to mechanisms that circulate as forms of payment rather than as evidences of an extension of credit. On the other hand, it may be that in the contemporary economy, legal doctrines that enhance extensions of credit (as negotiability may well do) are as important as money substitutes were in an earlier era. Hence, even if negotiability is less important for the functions that it once performed, it may have an equivalent value in a different context. That, at the very least, is the question that ought to be asked when addressing either novel forms of commercial paper or novel uses of traditional forms.

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**American Bar Association Task Force on Stored-Value Cards, *A Commercial Lawyer's Take on the Electronic Purse: An Analysis of Commercial Law Issues Associated with Stored-Value Cards and Electronic Money*, 52 BUS. LAW. 653, 665-666, 669-670 (1997).**

In the seventy years following the American revolution, the federal government had only a limited role in the issuance of paper currency. Instead, notes issued by banks chartered under the laws of the states served as a form of private "money" or currency. These notes represented promises to pay, or monetary obligations, of the banks that issued them. Ordinarily, state bank notes were not payable at par and the discount rate for such notes usually varied with their perceived creditworthiness.

Because information during this period was communicated inefficiently and imperfectly, a person deciding whether to take a state bank note might find himself in a difficult position. To assist with the decision-making, this person might consult one of the "bank note reporters" that circulated and contained valuation amounts for the notes of various issuers. There also existed an active brokerage market, with brokers buying notes at a steep discount and then attempting to sell them at a more modest rate. Even in this early period of our national history, arbitrage was alive and well.

During this period, bank failures were common. When a bank failed that had issued circulating notes, the holders of such notes often sustained considerable losses. Counterfeit notes were also a problem, which was exacerbated by the inefficient means of communicating financial information during the period; malefactors were able to cheat people with counterfeits because the victims would be duped into taking the bad paper without having a means to communicate with the purported issuer to determine whether it was authentic. The absence of uniformity in state bank notes also added to the problem; the more different bank notes crossed an individual's hand, the less likely that individual would know that a particular bank note conformed to type.

One serious attempt to respond to these problems was the so-called "free banking movement." Supporters of this movement demanded that free banks support their note issuances with state or federal securities. A well-run issuer whose notes were backed by collateral might find that its notes traded at or near par with gold. On the other hand, if a bank were poorly run, or if word leaked out that its notes were not sufficiently supported by collateral, this could lead to a run on the bank and a reluctance on the part of commercial counterparties to take the paper of an impugned issuer. By many accounts, the free-banking movement was a successful attempt at stabilizing the value of bank notes.

The federal government did not become involved in money matters until 1861. In an effort to finance the Civil War, the federal government began to issue its own currency. These federal notes were called "greenbacks" because of their distinctive color. The greenbacks were issued in

denominations of $5, $10, and $20, and were redeemable by the government in coin on demand at designated subtreasuries.

In 1862, the greenbacks took a new form: a currency that was "legal tender" for all debts, with the notable exception of import duties and interest on the public debt. These notes were the first federal experience with legal tender currency. Initially, $150 million of these notes were issued.

The greenbacks did not displace privately issued notes in the nation's money supply. Instead, the government paper and the private paper coexisted from the time of the Civil War to 1913, when the Federal Reserve Act (FRA) was enacted. It took approximately twenty more years before national bank notes were no longer in circulation.

The FRA was, in part, a response to the Panic of 1907. Immediately after that financial crisis but before enactment of the FRA, the Aldrich-Vreeland Act came into force. This legislation permitted associations of national banks to issue a temporary currency (Aldrich-Vreeland notes) that would expand the money supply during financial crises, with the approval of the Treasury Department. Notes of this kind, however, did not constitute legal tender. When the FRA displaced the Aldrich-Vreeland Act, its supporters considered the FRA to be a "currency bill." The federal reserve note occupied a central part of the statutory scheme, revealing the importance of the currency issue at this time.

The new federal reserve currency caught on quickly and, by 1920, comprised about half of the currency in circulation. Like the Aldrich-Vreeland note, it was an elastic asset-backed currency, not legal tender. Unlike the Aldrich-Vreeland note, the federal reserve note was a direct obligation of the U.S. government as well as an obligation of the issuing federal reserve bank. In 1933, the federal reserve note was made legal tender. Today, the federal reserve note remains the only circulating form of legal tender. It is regarded both in the United States and worldwide as the money of the United States. . . .

LEGAL TENDER

"Legal tender" is a concept, not a thing. When legislation of a sovereign government provides that only certain types of paper or objects, if tendered to an obligor, will discharge indebtedness, that concept is known as legal tender. The weakest form of legal tender laws merely oblige the government to accept a particular media of exchange in satisfaction of taxes. Such laws enhance the acceptability of the paper, commonly known as money, because almost all persons will eventually be indebted to the tax collector and will, therefore, need money to discharge such indebtedness. Stronger forms of legal tender laws provide that certain media of exchange, if presented to a private party, will be deemed to satisfy debts denominated in such currency. These laws may apply unless the party specifically objects or even if the party objects. The strongest legal tender laws contain criminal sanctions against a transactor who refuses to accept the tender.

Congress first authorized notes issued by the United States as legal tender for the payment of all debts, both private and public, as an emergency measure to raise funds during the Civil War (Legal Tender Act). In 1869, the U.S. Supreme Court determined that the Legal Tender Act could not be

applied retroactively to contracts executed before its enactment but left undecided whether the statute was constitutional if applied prospectively. In a series of later federal court cases based upon the Legal Tender Act (Legal Tender Cases), decided between 1870 and 1884, the U.S. Supreme Court held that Congress had the power, under the necessary and proper clause of the Constitution, to establish as legal tender a medium other than gold or silver coin. The Court stated that legal tender could be used to satisfy both public and private debts and to discharge a contract by tendering whatever constitutes legal tender at the time of payment. Although the Legal Tender Cases focused ostensibly on whether Congress had the authority to establish paper as a national currency and to make that currency lawful for all purposes, the collective opinions can be interpreted more broadly. One can read these cases as authorizing Congress to designate any money as legal tender which directly or indirectly enables Congress to exercise its express power to borrow on the credit of the United States and to coin money and regulate the value thereof .

Currently, for dollar-denominated indebtedness governed by U.S. law, "United States coins and currency (including federal reserve notes and circulating notes of federal reserve banks and national banks) are legal tender for all debts, public charges, taxes, and dues. Foreign gold or silver coins are not legal tender for debts." Tender of U.S. coin or currency in an amount equivalent to the dollar-denominated indebtedness will, therefore, work a discharge.

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## Robert B. Avery et al., *The Use of Cash and Transaction Accounts by American Families,* 72 FED. RES. BULL. 87 (1986).

Cash, which includes currency and coin, is usually ill-suited for transactions that involve very large sums of money or for which payment at a remote location is required. In other cases, however, cash is usually a highly suitable means of payment. To use cash, one must maintain an inventory of it that one replenishes as payments are made. Because maintaining a large supply of cash is costly (interest income is forgone, and there are security risks), individuals have an incentive to hold a relatively small average supply that is replenished frequently. On the other hand, because cash acquisition is costly ("shoe-leather" costs are incurred, and fees may be charged) individuals also have an incentive to hold a larger average supply that is replenished less frequently.

*Patterns of Cash Acquisition*

Individuals obtain cash to replenish their supplies in a variety of ways. For about 5 percent of the population, the receipt of income in cash is the principal mode of cash acquisition. Another small proportion, about 3 percent, typically obtain their cash from a family member. Thirty-seven percent of individuals ordinarily acquire cash by cashing a check drawn on someone else's account, such as a paycheck. But the majority, 55 percent, usually obtain cash by debiting one of their own accounts: by cashing a check drawn on their own account at a store or financial institution, by using an ATM, or by withdrawing funds from a savings or credit union share account.

A small proportion of the total amount of cash obtained by all individuals simply involves a transfer of cash from one person's inventory to another's, such as cash obtained from a family member or labor sold for cash. The bulk, however, is obtained by converting some part of a financial account balance into cash. When the conversion takes place at a depository institution, the cash so acquired represents a gross cash drain from the vault cash of that institution. The survey data suggest that at least 85 percent of the aggregate amount of currency obtained by individuals is acquired by methods that result in a gross drain of vault cash. When weighted to represent the U.S. adult population, gross outflow at the time of the survey amounts to about $65 billion per month. Since depository institutions held approximately $20 billion in vault cash at the time, this total implies that their aggregate vault cash turned over at the rate of about 3¼ times per month in support of the cash inventory practices of U.S. adults.

The principal methods of obtaining cash vary over demographic groups. As income rises, individuals are more likely to obtain cash from an ATM or by cashing their own check and are less likely to obtain cash by cashing a check they receive from someone else. Older persons, whether working or retired, acquire cash less frequently through ATMs and more frequently by cashing a check drawn on their own account at a financial institution. An individual's typical source of cash is more likely to be an ATM or a store the more education the person has; less-educated individuals are more likely to obtain cash by cashing a check they receive from someone else. Finally, the cash acquisitions for individuals whose income is automatically deposited into an account are more concentrated in ATMs and in cashing

checks drawn on their own accounts at financial institutions. For other individuals, cash is more likely to be obtained by cashing checks received.

The time between acquisitions of cash also varies systematically among groups of individuals. For example, as income rises, the time declines from a mean of about 18 days for persons with annual incomes of less than $10,000 to a mean of less than 8 days for persons with incomes of $50,000 or more. Persons with more education tend to acquire cash more frequently than those with less education, and younger persons more frequently than older persons. Individuals who typically obtain cash from ATMs have the shortest interval, averaging only about 7 days between cash replenishments, whereas individuals who typically obtain cash by withdrawing funds from a savings account have the longest, an average of about 17 days.

*Cash Velocity*

The turnover rate, or velocity, of cash is a ratio defined as total spending out of cash during some interval of time, divided by average cash holdings during the same interval. Velocity measures the payments efficiency of cash in the sense that a higher turnover rate implies that each dollar of cash outstanding supports a larger volume of spending.

The estimated average cash holdings per individual amounted to about $100. Given the size of the sampled population at the time of the survey, these estimates imply that, in the aggregate, adult, noninstitutionalized U.S. residents held about $18 billion in cash, which they used for transactions. Given the sampling variation and a statistical confidence interval of 95 percent, these holdings represented only 11 to 12 percent of the stock of currency and coin in circulation outside banks, which was $153.9 billion (not seasonally adjusted) in the second quarter of 1984. Unless respondents have severely understated their cash holdings, more than 85 percent of the U.S. currency stock outside depository institutions was held—apart from some that may be lost and unaccounted for—by other agents such as business enterprises, persons in other countries, and persons aged less than 18 years. It does not seem likely that children could have held cash inventories much greater than the total holdings of adults. In addition, the cash holdings of businesses generally consist of cash received from sales and inventories of cash held for making change and minor purchases. Because there are strong economic and safety incentives to minimize cash holdings, legitimate businesses are not likely to hold much. more cash than all adults. Therefore, the survey results suggest that a large proportion of the U.S. currency stock is held either in hoards, "underground," or offshore and thus for purposes not directly related to measured domestic economic activity.

According to the survey results, the cash holdings of individuals were turned over at an aggregate rate of about 4.2 times per month in support of about $420 in gross cash expenditure. Gross expenditure here is taken to include all cash expenditures, financial investments, and transfers to other family members. These estimates imply that the stock of cash held by the sampled population supported a flow of expenditure that, at an annual rate, amounted to about $920 billion. Thus, although individuals' holdings of cash represented a small fraction of the U.S. currency stock, these balances were used very actively in support of trade.

The cash turnover rate varies substantially across classes of individuals using different methods for acquiring cash. The general pattern is that the cash turnover rate tends to be highest for those groups of individuals who acquire cash through methods with comparatively low marginal convenience costs—ATMs, check cashing at stores, and from a family member. These individuals also tend to acquire cash with the highest frequency and to hold relatively small average cash inventories. The high turnover rate of cash obtained through ATMs, coupled with the low average supply of cash maintained by individuals who acquire it principally from ATMs, suggests that the widening use of ATMs may damp the growth of the aggregate currency demand of individuals and increase the aggregate velocity of cash.

The survey also shows strong life-cycle effects in the cash turnover rate, which is highest for younger individuals and declines with age. Older individuals acquire cash less frequently, maintain higher average inventories of cash, and have a lower dollar volume of spending out of cash than do younger persons. Taken as a percentage of income, however, cash expenditures are highest for individuals aged less than 35 years, decline to a low of about 23 percent for middle-age individuals, and thereafter increase with age.

Based on respondents' reports of their typical behavior, average cash inventories do not vary significantly across income classes, but cash expenditures rise strongly with income. The result is that cash turnover rates rise with income. Respondents' reports of their most recent cash acquisition confirm the positive link between turnover rates and income found in the data describing typical behavior; but they contradict the finding there about cash inventories, which they suggest do increase, though less than proportionately, with income. In both sets of data, cash expenditures rise with income, but less than proportionately.

**Clayton P. Gillette, Alan Schwartz and Robert E. Scott, PAYMENT SYSTEMS AND CREDIT INSTRUMENTS (1996), pp. 37–56.**

## CHAPTER TWO: NEGOTIABILITY AND ITS CONSEQUENCES

### SECTION I. INTRODUCTION — LEGAL TENDER

Most contracts, whether for the sale of goods, the provision of services, or the repayment of an extension of credit, require one of the parties to make a payment of money. It is the rare contract that allows payment in some other form. Chapter One provided an introductory discussion of why money is the most acceptable medium of exchange, even though (especially in its paper form) it has no intrinsic value. What we think of as money, which is defined in the Code as "a medium of exchange authorized or adopted by a domestic or foreign government," § 1–201(24), allows the recipient substantial choice about subsequent purchases, since money can readily be exchanged for other goods or services. In the absence of a medium of exchange, those who wished to obtain goods from another would have to engage in barter transactions. In a barter system, substantial time and effort is required to identify goods that can be exchanged, and parties would bear the risk that the objects to be exchanged may change in value between the time of contracting and the time that the goods can be put to use.

In this chapter, we begin by looking more rigorously at the features of money and its status as an accepted medium of exchange. This examination will reveal that the use of money can also create risks that make its use inconvenient in an exchange economy. Thus, it may be useful to create alternatives to money, so that parties who are willing to bear certain risks that are associated with monetary forms of exchange, but not others, will be able to select from an array of payment devices, each of which uniquely allocates the various risks of exchange. After our initial inquiry into money, therefore, we will examine the use of a negotiable instrument as a money substitute and compare some of the risks that attend these writings to the risks associated with money. These alternatives can be seen as presenting commercial actors with a menu of payment devices. Ideally, this menu permits commercial actors to select a payment device that is best tailored to their individual transaction. Once we recognize how negotiable instruments function to create this menu of choices, we can investigate the procedures by which one creates a negotiable instrument in order to take advantage of its peculiar characteristics. Finally, we consider some contemporary critiques of negotiability and attempt to determine whether the concept remains viable for the contemporary commercial world.

Any form of money has the characteristic of a medium of exchange in large part because of custom: individuals are willing to accept money in exchange for commodities or services because other sellers of goods and services are expected to exchange goods in return for those same bills and coins. If tobacco plants or notes issued by a private individual had this degree of acceptance, they would become equally acceptable as money in playing the role of a medium of exchange. But money typically has an additional feature: it is sanctioned by the government as legal tender. For

example, the United States Code provides that "United States coins and currency (including Federal reserve notes and circulating notes of Federal reserve banks and national banks) are legal tender for all debts, public charges, taxes, and dues." 31 U.S.C. § 5103 (1982). Money does not necessarily have this feature. Indeed, notes of the United States were not legal tender until the Civil War, and national bank notes and Federal Reserve Notes were not legal tender until 1933. Until that same year nickels and pennies were legal tender only up to 25 cents. Conversely, not all legal tender is money, if we mean that term to refer only to coins or paper minted by the government. As an historical matter, commodities have on occasion been designated as legal tender. Revolutionary France authorized the payment of some debts in grains. Corn, tobacco, and other commodities served as legal tender during the Colonial period. See Arthur Nussbaum, Money in the Law 54–55 (1950). To the extent that we consider money to be any medium of exchange within a given economic area, of course, legal tender is necessarily money.

What is the significance of legal tender? One benefit of designating money as legal tender should be apparent from the materials in Chapter One. While commercial actors can theoretically benefit from converting exogenous market risks into endogenous paperized risks, they can realize these benefits only if all agree on the form that the relevant paper should take. The exact form of the paper might be of little importance; but if different parties attribute different legal meanings to the same piece of paper, the commercial benefits that are realizable in theory cannot be realized in practice. Commercial actors, therefore, are faced with a coordination problem, in which no one actor cares about the practice that other actors follow, as long as all follow the same practice. (Think, for instance, of the coordination problem inherent in driving; prior to the manufacture of automobiles with a steering wheel on one side or the other, it would be a matter of indifference whether drivers drove on the right side of the road or the left. What is important is that all drivers drive on the same side.) The coordination problem can be solved if a centralized decision maker dictates a particular form of document that all commercial parties have reason to adopt. A government that designates a particular medium of exchange as legal tender plays such a role by inducing all actors to treat that medium of exchange as embodying the form necessary to accomplish the objectives for paper that were identified in Chapter One.

But solving the coordination problem may also require the creation of inducements that make legal tender acceptable. Those inducements may take the form of legal rules that create a series of carrots and sticks related to the transfer of legal tender. Assume that I owe Smith $100, that nothing has been said between us as to form of payment, and that I offer 10,000 pennies in payment of my debt. Must Smith accept the pennies? Since legal tender is "money which a creditor is not privileged to refuse if it is tendered by a debtor in payment of his debt," Arthur Nussbaum, Money in the Law 45–46 (1950), and Congress has designated the penny as "legal provides a means to extinguish a debt that the obligee is required to accept. tender," one might imagine that the answer is "yes." Thus, legal tender But, under current law, if Smith does refuse my tender of the pennies, my debt is not discharged. As long as I keep my tender good, by recognizing that the pennies are held for Smith, I will not be liable for any interest or costs after the time of tender. Indeed, this is true even where tender is made with a negotiable instrument rather than with currency. See, e.g., § 3–603(c);

Brinton v. Haight, 870 P.2d 677 (Idaho Ct. App. 1994)(tender of cashier's check in full payment of debt and keeping tender good discharges offeror from liability for interest accrued thereafter). If Smith brings an action for the amount of the debt, payment of the legal tender into court will discharge my obligation. Tender of payment also discharges any security held by the creditor. (There is, however, some support in English law for the proposition that the debtor who continues to make use of the money will be liable for interest. See Barratt v. Gough–Thomas, [1951] 2 All ER. 48.)

These principles have not always governed the significance of legal tender. One indicium of an authoritative and stable government is the definition and administration of a monetary policy within its territory. Thus, one would imagine that when governments are attempting to establish their authority, they would seek to ensure the currency of their monetary systems and to create a monopoly over forms of money usable within the territory. Consequently, a fledgling government should want to create substantial incentives to recognize government-sanctioned currency. Thus, during the revolutionary period in this country, the continental congress prevailed on the states (which had authority over the debts of their residents) to make refusal to accept continental currency a forfeiture of the underlying debt. While the incentives created by the continental congress and the states for the acceptance of the "continentals" may seem harsh, they pale in comparison to efforts by other governments to establish a form of currency. In post-revolutionary France, for instance, failure to accept the governmentally sanctioned assignats, which were notes backed by parcels of land, could lead to a penalty of death.

There are, however, limits to the effects of governmental fiat. If commercial actors do not believe that governments are secure, commercial practice is likely to ignore the official medium of exchange in favor of other forms of currency, notwithstanding legal doctrine of tender. Thus, continental bills of credit were not readily accepted as forms of payment, with the result that they quickly became worthless. Justice Field described the failed effort in his dissent from the opinion in Juilliard v. Greenman, 110 U.S. 421, 451–52 (1854)(Field, J., dissenting), which upheld the power of Congress to enact peacetime legislation making notes of the United States legal tender.

> During the revolution and the period of the old confederation, the continental congress issued bills of credit, and upon its recommendation the states made them a legal tender, and the refusal to receive them an extinguishment of the debts for which they were offered. They also enacted severe penalties against those who refused to accept them at their nominal value, as equal to coin, in exchange for commodities. And previously, as early as January, 1776, congress had declared that if any person should be "so lost to all virtue and regard for his country" as to refuse to receive in payment the bills then issued, he should, on conviction thereof, be “deemed, published, and treated as an enemy of his country, and precluded from all trade and intercourse with the inhabitants of the colonies." Yet this legislation proved ineffectual; the universal law of currency prevailed, which makes promises of money valuable only as they are convertible into coin. The notes depreciated until they became valueless in the hands of their possessors. So it always will be; legislative declaration cannot make the promise of a thing the equivalent of the thing itself.

For a more contemporary example, we can turn again to governmental efforts to control commercial practices in the former Soviet Union. In Russia, the rouble serves as legal tender as a matter of legal

doctrine, and penalties can be imposed for failure to accept roubles in payment of debts. Nevertheless, local creditors concerned about the stability of new governments have been unwilling to accept anything other than more stable foreign currencies (American dollars, German Deutschmarks) in return for goods and services. Prior to monetary reforms in mid–1993, the Moscow News reported an exchange between one of its correspondents and the Executive Director of the Expert Institute.

> Q.: According to estimates, about a dozen billion dollars are now changing hands in Russia, which is thrice the country's entire available cash supply, if converted into our roubles. Is this what has come to be called dollarization of the economy?
>
> A.: The whole point is not the money supply as such but which legal tender is dominant. If all economic entities deal with one another through the medium of the dollar, make settlements and conclude contracts, then this is precisely what we call dollarization. But we don't have this phenomenon. The dollar holds undivided sway only in a rather limited economic province: super-expensive restaurants where payments are made in hard foreign currencies and similar shops and stores, and the sale of cars, apartments, and garages, and country houses. In all other areas of ordinary life the rouble is still quite competitive. It is accepted everywhere, even in trade outlets where settlements are made in hard currency. It is in roubles that a vast majority of transactions are conducted by most firms. Or take labour remuneration. So far, no law has been adopted that would tie it in with the current rate of foreign exchange, the way this is practised in the countries where they have reconciled themselves to the fact of their own legal tender being defective.
>
> Q.:But if all can be bought for roubles and everybody prefers making settlements in roubles why should people have any other currency? Is this avalanche-like growth of the dollar supply in the country utter nonsense, economically speaking?
>
> A.:So far this is but plain evidence of the fact that our people have a big boost in their incomes expressed in dollars, the total amount of which is unknown to our taxation bodies. I don't stress the fact that people have actually earned this money. The main thing is what they do with this money. So, to all appearances, this legal tender is used not only as a means of payment but also as a tool to secure their incomes against inflation. Note that these finances are normally kept at home inasmuch as after the plunder perpetrated upon our people by the Vneshekonombank of the USSR (Foreign Economic Bank) our people no longer trust any banks.
>
> The bulk of foreign exchange currency circulates in Moscow and St. Petersburg. Thence it spreads all across the country: children help their parents and/or receive help from them. In short, considering this, it is clear that official statistics claiming that living standards in 1992 were but half those in 1991 are incorrect. In reality, allowing for the dollar component, incomes can be even higher now.
>
> Q.:Why then should we worry? There is no dollarization. The dollars, even if quite numerous, are mainly held as a reserve. Meanwhile the authorities occasionally threaten to expropriate them. It is in an attempt to "eliminate" dollars that Yeltsin launched the reform (and I mean his Decree on liberalization of foreign economic activity whereby all hard-currency shops and stores were directed to shut down by the summer of 1992). Now a similar ban is being contemplated by Parliament. The Central Bank is keen on forcing the enterprises to sell all their hard-currency earnings. Is this not utter nonsense?
>
> A.:The dollar can no longer be eliminated by any decrees or injunctions. There used to be grim times in which people stuck on dollars were even executed by firing squad. Yet the black market flourished.

> If we show concern for our national currency it is not through enforcement that we should foster our people's attachment to it. It is essential to render it more attractive than any other legal tenders.

*Moscow News Weekly*, May 26, 1993.

Notwithstanding the interviewee's protests, at about the same time, the Deputy Prime Minister of Russia was vowing to ban the U.S. dollar as legal tender in that country. Agence France Presse reported him as saying "The rouble must be the only legal tender on Russia's territory ... We must go beyond this transitional period during which foreign currencies are pushing out the domestic currency." According to the report, "(t)he U.S. dollar and other foreign currencies have over the past year been increasingly used as a medium of exchange with all foreign-owned businesses in Russia as well as at street kiosks that have sprung up throughout the city." Agence France Presse, December 24, 1992.

A government that adopts legal tender, therefore, is not simply acting benevolently to solve a coordination problem. (After all, that problem would be solved if the government did not issue its own paper, but simply dictated the form that privately issued paper had to take in order to obtain the advantages of a paperized payment system. Indeed, we will see that the Uniform Commercial Code provides just that function in § 3–104.) In addition, the designation of governmentally issued money as legal tender implicitly signals the government's stability and tests the public's faith in the government's operation. While the government backing of legal tender might make that medium more secure than a privately issued currency and hence reduce the costs associated with payment systems, the fact that government stability is intertwined with a monetary system may itself require certain risk allocations. For instance, governments might desire legal doctrines that reduce the costs of investigating the validity of what purports to be legal tender or that increase the costs of refusing to accept legal tender. The fact that a government has denominated its currency as legal tender, however, may itself serve to allocate certain risks in a particular manner, as the following materials illustrate.

### PROBLEMS

**1.** Following her graduation from law school, Plotkin accepted a position with a law firm in Chicago. She contracted with Transnational Van Lines ("TVL") to move her belongings to Chicago for $2500. The contract that she signed with TVL provided that payment in full was due on arrival of her belongings at her new residence and that payment was to be made "by cashier's check, certified check, or credit card."

When the van pulled up to Plotkin's new apartment, the driver of the moving van informed her that he required payment before he began unloading her belongings. Plotkin pulled out 25 crisp $100 bills and offered them to the driver. He refused the money saying, "I can't carry that kind of money around. I've got to have a bank check or a credit card." Plotkin protested that he could take the money and get a bank check himself if he wanted. When the driver continued to insist, pointing to the language of the contract, Plotkin replied, "this is perfectly good money; take it or leave it." The

driver responded, "I'll leave the money with you, but I'll take your stuff until you provide what you agreed to pay." The driver drove off but offered to return the next day after Plotkin called to say she had obtained a cashier's check. TVL informed her, however, that she would be charged an extra $100 for a day's storage of her goods since she did not have the payment when the truck arrived. Plotkin has called you and indicated that she wants to bring a conversion action against TVL. What advice do you have for her? See Nemser v. New York City Transit Authority, infra.

**2.** In June 1994, an engineer at the United States Bureau of Engraving and Printing was charged with stealing $1.6 million in new $100 bills from the Bureau. Federal agents discovered $650,000 in cash in the engineer's car and $500,000 in a safe deposit box. Ironically, the stolen bills came from a project that the bureau was operating to design currency in a way that prevents counterfeiting by inserting a polyester thread that identified the denomination of the bill. These "test bills" were not intended to leave the bureau building or to circulate as currency. They were intended only to allow assessment of the quality of design changes. Nevertheless, they were largely indistinguishable from circulating currency, except by Federal Reserve Banks and the Bureau. While test bills are usually assigned zeros for serial numbers, these bills shared the same serial numbers as legitimate bills in circulation so that the Bureau could test its numbering process on the special paper used for this project. Under normal conditions, the test money would have been destroyed quickly. In this case, however, the company that supplied the paper for the currency had challenged the bureau on its cost estimates. While the contract dispute was pending, the test bills were retained in a steel vault as potential evidence. The defalcating employee retained supervision over the vault where the bills were stored and was supposed to order destruction of the bills after the dispute was settled. See Jon Jetter & Brian Mooar, Federal Worker Allegedly Stole Test Currency, Wash. Post, June 18, 1994 at Al; Wash. Post, Sept. 24, 1994 at Cl.

Assume that you represent the owner of a hardware store who received four of the hundred dollar bills from the engineer the morning of his arrest. He had entered your client's store and purchased a lawn mower for cash, a common occurrence. The government has now seized the $100 bills and informs your client that they will not reimburse him. What recourse do you have against the government? What responses do you anticipate?

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***Nemser v. New York City Transit Authority***

140 Misc. 2d 369, 530 N.Y.S.2d 493 (N.Y.Sup.Ct. 1988).

DAVID B. SAXE, Justice.

The issue I am asked to decide is whether the Federal legal tender statute (31 U.S.C. § 5103) mandates the acceptance by the New York City Transit Authority ("NYCTA") of legal tender dollar bills as bus fare.

The plaintiffs, two public-spirited bus riders in New York City, have brought this proceeding seeking a declaratory judgment that the policy of the NYCTA in refusing to accept dollar bills as bus fare violates Federal and State law. Expounding at great length on the historical basis of our nation's legal tender statutes, the plaintiffs have thoroughly investigated, briefed and applied to this current dispute cases and authorities dealing with beaver pelts, wampum and the enforceability of contract gold clauses during the Great Depression. Although the analysis offered is novel and interesting, I hold that the Federal legal tender statutes cannot be interpreted to require acceptance of a particular denomination of currency, such as single dollar bills, for bus fare.

The crux of the plaintiffs argument is contained in 31 U.S.C. § 5103, where it is stated that: "United States coins and currency . . . are legal tender for all debts, Public Charges, taxes, and dues." I conclude that the statute cannot and should not be applied as broadly as the plaintiffs urge.

First of all, it strains logic that Congress would have intended the statute to preclude a payee from limiting the locations where certain types of cash payment may be made. The NYCTA does not refuse dollar bills; it merely limits its acceptance of them to those locations where its employees, with appropriate safeguards, can issue in exchange the equivalent of a ticket — a token, which is in turn accepted by the Authority's turnstiles and bus fare boxes. Such a practice is not unusual; other carriers require their passengers to purchase a ticket in one location and then to tender the ticket once aboard the vehicle.

Furthermore, a "reasonableness" standard has long been held to limit the carrier's obligation to accept legal tender. For instance, in Barker v. Central Park, N. & B. Riv. R.R. Co., 151 N.Y. 237, 45 N.E. 550 [1896], where a passenger tendered a $5 bill in order to pay a five cent fare and was turned away by the conductor, a dismissal of his action for damages was affirmed. The court there concluded that such a large amount was not a reasonable sum for which to seek change on a railroad car; additionally, it held that the question of what is reasonable in this regard is addressed to the court (151 N.Y. 237, 241, 242, 45 N.E. 550, supra). Similarly, in Martin v. The Rhode Island Co., 32 R.I. 162, 78 A. 548 [1911], the Rhode Island Supreme Court upheld as reasonable a streetcar conductor's refusal to accept payment by five 1–cent coins where the company's policy was that payment must be made by placement of a 5–cent coin in the conductor's automatic fare collecting device. That court cited the "incidental power of a common carrier to establish reasonable rules regulating the time, place, and mode for payment of its reasonable charges" (see Martin v. The Rhode Island Co., 32 R.I. 162, 166, 78 A. 548 supra). Thus, the absolute language of the legal

tender statute is clearly modifiable by the necessary consideration of what is reasonable under the circumstances.

On the issue of the reasonableness of its decision, the NYCTA offers materials reflecting its ongoing consideration of various fare collection options. Some time ago, it instituted an entirely automated fare collection system on its buses in order to protect its drivers from theft and assault; more recently, to protect its revenue, it has begun to install electronic fare boxes. With regard to payment other than by coins, it has considered equipping its new fare boxes with bill acceptors or with automatic fare collection (AFC) magnetic cards. Having concluded that the currently available mechanisms capable of accepting paper currency are incompatible with the new electronic fare boxes and would moreover introduce additional inefficiencies and security problems, the NYCTA explains, it has opted to devote its scarce resources to developing the AFC magnetic card payment system. Nothing submitted by plaintiffs definitively refutes the defendant's assessment of the inefficiencies of the available bill-accepting mechanisms.

Plaintiff looks to other, smaller bus lines in other cities and in this city to argue that those systems' acceptance of dollar bills reflects the inherently unreasonable nature of the NYCTA's policy. I do not agree. The reasonableness of its policy is not tied to practices adopted by other bus lines.

I further note that other circumstances indisputably exist in which payment of money is required, and in which dollar bills — at least until very recently — were unacceptable as payment, e.g. in vending machines, and at automated laundromats. To suggest that a proprietor's use of such automated systems violates the legal tender statute is ludicrous. The defendant's present day bus fare collection system is more closely analogous to such automated systems than it is to the fare collection systems on streetcars a century ago, and its institution of an automated fare collection system which is unable to accept single dollar bills is eminently reasonable.

For the foregoing reasons, upon searching the record, partial summary judgment on plaintiffs' fourth cause of action is granted in favor of the defendant, and that cause of action is dismissed on the merits.

Once the statutory basis of plaintiffs' claim is disposed of, the remaining causes of action must fall. The claims that the NYCTA (1) has failed to meet its obligation to provide a reasonable level of service, (2) has breached its duty as a public common carrier, and (3) has breached its contract with plaintiffs, are simply not of a variety that a court may adequately address. "The relief sought by the plaintiffs ... would 'embroil the judiciary in the management and operation' of the New York City Transit [Authority], a task the courts are not suited to perform" (see McKechnie v. New York City Transit Police Dept., 130 A.D.2d 466, 468, 515 N.Y.S.2d 48, quoting Matter of New York State Inspection, Sec. & Law Enforcement Employees v. Cuomo, 64 N.Y.2d 233, 239, 485 N.Y.S.2d 719, 475 N.E.2d 90; see also Leeds v. Metropolitan Transp. Auth., 117 Misc.2d 329, 330–331, 460 N.Y.S.2d 219).

Consequently, defendant's motion pursuant to CPLR 217, 3211(a) and Public Authorities Law § 1212 is granted to the extent that plaintiffs' first, second and third causes of action are dismissed.

NOTES

**1. Questions on *Nemser*.** What were the risks that the Authority was trying to avoid by imposing the requirement of offering legal tender at specific times and places? Are these risks unique to the use of legal tender? Can you think of other ways in which the Authority could have avoided these risks without imposing similar inconvenience on passengers? Would these alternatives cost the Authority more than they would save passengers? If you were the attorney for the Authority, would you recommend any changes to the payment devices used by passengers?

**2. Reasonable Time and Place Requirements.** In Martin v. Rhode Island Co., 78 A. 548 (R.I.1911), cited in the principal case, the court denied a passenger's claim for wrongful ejection from a street car on two separate occasions after the passenger failed to comply with the carrier's rules for tendering payment of the five-cent fare. On the first day, the passenger handed a nickel directly to the conductor and then refused the conductor's request to insert the coin into a handheld automatic fare-registering device. On the second occasion, the passenger tendered five pennies to the conductor, who then gave the passenger a nickel and again asked him to insert it in the fare box. The Rhode Island Supreme Court noted that a common carrier had authority to establish and enforce reasonable rules regulating the time, place, and mode for payment of its reasonable charges. Id. at 549. See, e.g., Reese v. Pennsylvania R.R. Co., 19 A. 72, 73 (Pa. 1890). The court viewed the carrier's requirement of insertion of a nickel into the fare-registering box as equivalent to a rule requiring the purchase of a ticket. Indeed, the requirement was "far less burdensome" than many other rules involving ticket purchase, transfers, and payment of fares that had been upheld in other jurisdictions. 78 A. at 551. The court observed "it is clear that an automatic registering device of the character here under consideration, which imposes only a slight (if any) inconvenience upon the passenger, and which is of such manifest aid both to the company and its conductors in simplifying the accounting for and return of fares collected~ securing accuracy, and tending to prevent fraud and mistake, should be approved rather than condemned." Id. See also Nye v. Marysville & Yuba City St.-R.R. Co., 32 P. 530 (Cal. 1893)(holding rule requiring deposit of fare in box was "reasonable, and necessary to prevent fraud upon company"); Morley v. Snow, 75 N.W. 466, 467 (Mich. 1895)(sustaining railroad receiver's regulation requiring payment of fare into cash register rather than conductor's hand); Kitchen v. Wilbur (unreported case cited in Morley, 75 N.W. at 469 (Grant, C.J., concurring)(holding carrier rule requiring passenger to place fare in fare box was reasonable)); Elder v. International Ry. Co., 122 N.Y.S. 880, 882 (N.Y.Sup.Ct. 1910)(holding rule requiring street car passenger to deposit fare in box was valid and reasonable regulation).

The court also considered the federal statute that provided that "the minor coins of the United States shall be a legal tender ... for any amount not exceeding twenty-five cents in one payment." On the facts of the case, the conductor had accepted the five pennies as the purchasing equivalent of a nickel and thus did not violate the statutory provision of the legal tender statute. Martin, 78 A. at 553.

Does the reasonableness requirement recited by the court apply only to reasonableness in the time and place of payment? Would a general reasonableness requirement also apply to the attempt to pay

a $100 debt in pennies? Assume that payee must cart the pennies away and sort them into rolls of 50 in order to bring them to the bank. Who should bear the expense of carting and sorting?

**3. The Obligation to Provide Change.** The court in the principal case defends its invocation of the reasonableness requirement by reference to Barker v. Central Park, North and East River R.R. Co., 45 N.E. 550 (1896), where the court affirmed a dismissal of an action for damages by a street car passenger who was refused transit after tendering a ~five-dollar bill for payment of a five-cent fare. The defendant had a company rule requiring its conductors to provide up to two dollars in change and there was no evidence of custom by the plaintiff or the public generally of tendering to the defendant five-dollar bills for a five-cent fare. Id. at 551. The court held that, under the circumstances, the tender was unreasonable as a matter of law. Id.

In general, there is no obligation to provide change to a debtor who offers legal tender in an amount greater than the amount of the debt. (One must look at some relatively dated cases to find support for this proposition. See, e.g., Perkins v. Beck, 19 F.Cas. 239 (C.C.D.C.1830) (No. 10,984), but there seems little reason to believe the principle has or should be altered.) Some courts have recognized an exception for common carriers, such as railroads. In Barrett v. Market St. C. Ry. Co., 22 P. 859 (Cal. 1889), a street car passenger was ejected after the conductor refused his tender of a five-dollar gold piece for payment of a five-cent fare. Stating that it would not be reasonable in all cases for a carrier to demand a tender of the exact fare, the California Supreme Court held that the "true rule" is that a passenger must tender a "reasonable sum" and that the carrier must accept such tender and provide change up to a reasonable amount. Id. at 859–60. On the facts of the case, the court decided that tender of a five-dollar gold piece was reasonable. Id. at 860. The court also distinguished the case from steam railroad carriers, where passengers are expected to procure a ticket in advance from established ticket offices. Id.

**4. Restrictions on the Use of Money.** In Berry v. Hannigan, 9 Cal. Rptr. 2d 213 (Cal. Ct. App. 1992), an automobile towing and storage facility operator challenged a statute requiring such operators to accept credit cards as payment from vehicle owners whose vehicles had been involuntarily towed. The operator claimed that the statute violated the federal Constitution's legal tender provision as well as the equal protection clause and the due process clause. Towing operators preferred to run a cash-only business because they feared that irate vehicle owners would attempt to stop payment on the credit card by disputing the charge for services to their credit card issuer.

The court held that the statute did not establish credit card drafts as legal tender, but rather simply required operators to accept credit cards as a way of paying legal tender. See also Porter v. City of Atlanta, 384 S.E.2d 631, 634 (Ga. 1989), cert. denied, 494 U.S. 1004 (1990) (rejecting challenge to statute requiring towing and wrecker companies to accept checks and credit cards); Cade v. Montgomery County, 575 A.2d 744, 749 (Md. Ct. App. 1990), cert. denied, 498 U.S. 1085 (1991) (holding that statute requiring towing companies to accept checks and credit cards represented an alternative manner of cash payment rather than the establishment of a substitute form of legal tender). If towing facility operators are unwilling to accept the payment risks associated with credit cards, and another payment device, cash, eliminates that risk, why should the state intervene to

require that operators accept a riskier payment device? What would you predict that towing operators will do in response to the legal requirement that they accept a riskier form of payment?

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## SECTION II. NEGOTIABILITY AND ITS CONSEQUENCES

The use of payment systems to reduce the market risks of barter transactions does not, of course, eliminate risks. As indicated in Chapter One, the creation of payment devices converts those risks into more manageable risks within the payments system. Thus, the legal rules that govern the system must still allocate residual risks among the relevant parties. To some extent, the risks related to payments, such as the risk of theft or loss, should be familiar to you from courses in contracts or sales, which concern ownership risks involving goods. Simply because the risk is the same, however, does not necessarily mean that losses should be similarly allocated. The fact that payment devices must be readily acceptable may suggest that risks of ownership of money and its substitutes should be allocated differently than risks of ownership of goods. Alternatively, it may be that even if the objective underlying both goods and payment mechanisms is the same-for instance, allocation to the party in the superior position to avoid or insure against materialization of a risk — that objective would best be realized by allocating the risk to one party with respect to the goods, but a different party with respect to payment devices. Moreover, in different transactions it may be appropriate for different parties to bear risks associated with payment; hence, alternative payment devices may allow parties to tailor transactional risks to their specific needs.

### *Code Provisions as Default Rules*

Where the transaction involves goods, one traditional legal principle for resolving many conflicting claims is that a transferor of property cannot convey a title superior to his own, even to a bona fide purchaser for value. This principle allocates to third party purchasers the risk of a wrongful transfer of property rights, as well as the risk of claims or defenses arising out of the underlying relationship between buyer and seller. For example, Restatement 2d of Contracts § 336 embodies the familiar rule that an assignee of contract rights takes subject to defenses sufficient against the assignor. Article 2 of the UCC contains similar provisions, allocating to most purchasers the risk of a wrongful transfer of goods (§ 2–403(1)). Thus, if a thief steals my television and I find my television in the hands of Buyer, who purchased it innocently and for value, I can recover my television from Buyer. . . .

Money is not a "good" for purposes of the UCC. See § 2–105(1). Thus, the ownership rules that apply to goods do not expressly govern ownership of money. Similarly, the objectives of loss allocation rules for money may vary from those that apply to goods. Nevertheless, the same ownership problem exists, so that some loss allocation rule is necessary. Assume, for instance, that I own 1,000 one-dollar bills. I carefully mark each one in the upper left-hand corner with a distinguishing mark and write down the serial numbers. The dollar bills are stolen from me and

transferred by the thief in return for a television at a local department store. If I find the dollar bills in the hands of the department store, should I be able to regain them, assuming that I can identify them? If we allocate the risk of loss to true owners of money, then they must take greater precautions to avoid its loss; if we allocate the loss to good faith transferees of money, they must take greater precautions to ensure that the money they accept has not passed through the hands of a thief.

If we apply the analysis that governs the sale of goods, we might decide that the proper default rule depends on whether we believe that true owners of money or their transferees are in a superior position to detect or deter theft or other losses. As we have seen, however, money has characteristics beyond those that attend goods: money, for instance, is also a marker of government stability. As you examine the following materials, consider whether this characteristic, the efficiency explanation of risk reduction, or the need to solve a coordination problem (or some other objective) best explains the legal allocation of risk with respect to money.

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*City of Portland v. Berry*, 86 Or App 376, 739 P.2d 1041 (Or. Ct. App. 1987).

ROSSMAN, JUDGE.

Plaintiff brings this interpleader action to determine which of the defendants is entitled to $18,000 in $1,000 and $500 bills that its Bureau of Police acquired for use as evidence in the criminal prosecution of the thief who stole them. Defendants Berry and Kelly (appellants) seek return of the bills. The trial court awarded them to defendant United States National Bank of Oregon (Bank). Berry and Kelly appeal, and we affirm.

This dispute arose after appellants' live-in attendant, Wetzel, stole nine $1,000 bills and 18 $500 bills from them. Over the course of three months, Wetzel took the bills to Bank, where she converted them into smaller denominations of cash, travelers' checks, a cashier's check, savings bonds and savings accounts. During the course of its investigation and preparation for prosecution of Wetzel for theft, the Bureau of Police subpoenaed and obtained the bills. After Wetzel was convicted of theft, plaintiff initiated this action to determine whether they should be returned to the appellants as victims of the theft or to Bank.

Appellants' assignments of error raise an issue of first impression in this state. First, they argue that the trial court should have applied the general rules of replevin to reach its disposition. Bank successfully argued below that the applicable rule is the "money rule," which provides that a third party who takes stolen money in good faith and for valuable consideration obtains good title and prevails over the victim of the theft. Appellants contend that the "money rule" should not apply here, because the bills are not "money" in the sense that they are not normal cash and that, even if they are "money," the policy reason for the rule does not apply when the bills in question are of $500 and $1,000 denominations.

We reject appellants' contention that the bills are not "money." Although the United States Treasury has not printed $500 and $1,000 bills since 1945 and has been systematically taking them out of circulation and destroying them since 1969, their rarity does not affect the fact that the bills continue in circulation and are legal tender.

As a general rule, an action for replevin will lie for recovery of personal property to which the plaintiff has the right to immediate possession. Money is personal property. If the action for recovery of money fails, it is usually because the specific money is not sufficiently identifiable as the plaintiffs property. When, however,

> "specific bills and coins are identifiable because of serial numbers or special markings, or because they are located uncommingled at a specific exclusive place or contained within a [sic] identifiable container, the bills and coins, so identifiable, can be replevied."

Williams Management Enterprises v. Buonauro, 489 So. 2d 160, 164 (Fla. App. 1986).

Even assuming that the particular bills are sufficiently identifiable, appellants' argument nevertheless fails. Although generally the owner of stolen property can recover it from anyone who acquires it, because a thief cannot pass title to stolen property, title to currency passes with delivery to a good faith purchaser for value. Transamerica Insurance Company v. Long, 318 F. Supp. 156, 160 (W.D. Pa. 1970). Thus, as against the thief, appellants can assert their right of ownership. However, a third party who takes stolen money "in good faith and for good consideration will prevail over the unfortunate victim of the thief." Kelley Kar Company v. Maryland Casualty Company, 142 Cal.App.2d 263, 298 P.2d 590, 592 (1956); see also Ohio Casualty Insurance Company v. Smith, 297 F.2d 265 (7th Cir. 1962); Transamerica Insurance Company v. Long, supra. A similar rule applies when bearer paper is lost or stolen. The victim of the loss or theft cannot recover from a good faith purchaser for value who takes the instrument in the ordinary course of business, because the purchaser is a holder in due course. See ORS § 71.2010(20); § 73.3020(1); § 73.3050; § 73.3060; White and Summers, Uniform Commercial Code § 14–3 (1980). Although at least one state requires that the purchase be made in the ordinary course of business before a person who takes money in good faith and for value can obtain good title, Sinclair Houston Federal Credit Union v. Hendricks, 268 S.W.2d 290, 295 (Tex. Civ. App. 1954), because of the necessity that currency be readily acceptable as payment for debts, we conclude that the good faith and valuable consideration requirements provide ample protection from pretextual transfers of stolen money from a thief to a third party. Accordingly, if Bank took the money in good faith and for good consideration, appellants have no ownership rights that can be asserted.

Appellants argue that the policy behind the rule, that there is a "necessity that money pass freely in commercial transactions," Sinclair Houston Federal Credit Union v. Hendricks, supra, 268 S.W.2d at 295, would not be furthered by its application when, as here, bills of these denominations are unusual and relatively rare. We do not agree. So long as the United States Treasury has not removed the bills from circulation and considers them to be legal tender, the policy underlying the rule remains viable. We do not accept appellants' argument that, because these specific bills were

not freely flowing in commerce, the policy justification for the rule ceased to exist. Legal tender must continue to be freely acceptable without inquiry as to its source.

Appellants also challenge the trial court's factual determination that the bills "were received by the bank in good faith [and] for good consideration." In Community Bank v. Ell, 278 Or. 417, 564 P.2d 685 (1977), the Supreme Court considered the Uniform Commercial Code good faith requirement of ORS 71.2010(19): "honesty in fact in the conduct or transaction concerned." The court's interpretation, which we adopt in this case, is that "[t]he appropriate standard is a subjective one, looking to the intent 4 or state of mind of the party concerned." 278 Or. at 428, 564 P.2d 685. (Footnote omitted.) The trial court heard evidence that the large denomination of the bills aroused the interest of Bank employees, that they asked Wetzel where she got them, to which she replied that the money was an inheritance, and that the employees considered the answer believable. The employees testified that they did not suspect that the money was stolen and we find nothing in the record that would lead us to conclude that Bank was not acting in good faith.

Appellants argue that Bank did not give consideration for the bills, because it paid only the face value, not the price for which they could have been purchased on the open market. Face value of legal tender is valuable consideration.

Affirmed.

NOTES

**1. Questions on *Berry*.** Note that there was testimony that the Bank's employee made inquiries of Wetzel about the origin of the bills. What could such an inquiry reliably disclose? If there is no easy way for the Bank to verify what the customer says, should we require the Bank, at its peril, to make the inquiry? Duties of inquiry might be more appropriate where ownership of goods has been registered, as in the case of cars that are subject to a certificate of title. Would duties of inquiry be productive in the case of other valuable goods, such as paintings or stereo equipment? For instance, we could establish a voluntary registration system for valuable goods that would allow the original owner of a registered item to retake the good from any subsequent purchaser if the original owner had been unlawfully dispossessed of the good. See Ashton Hawkins, Richard A. Rothman, & David B. Goldstein, A Tale of Two Innocents: Creating An Equitable Balance Between the Rights of Former Owners and Good Faith Purchasers of Stolen Art, 64 Ford. L. Rev. 49 (1995). The desirability of such a system obviously must take into account the costs of creating and maintaining a registration system, and of obligating purchasers of expensive goods to check the register before completing their purchase. Article 9 of the UCC creates such a system for the registration of security interests in order to allow creditors to establish priority.

What is the function of the rule that prevents the victim of a theft from recovering stolen money from a transferee of the thief? To what extent is the rule rooted in the fungibility of currency, which makes identification of the victim's money more difficult? In Transamerica Insurance Co. v. Long, 318 F. Supp. 156 (W.D.Pa. 1970), cited in *Berry*, an insurance company attempted to recover from

an IRS District Director amounts paid for taxes with funds allegedly stolen from an insured bank. The bank robber had paid his taxes in a combination of cash, cashier's checks, and money orders. The IRS director was unaware that the funds had been stolen until after receiving payment. The court concluded that:

> title to currency passes with delivery to the person who receives it in good faith and for valuable consideration.
>
> It is absolutely necessary for commerce and business to continue that one who receives money ... is not put on inquiry as to the source from which the funds have been derived. It is generally impossible or impractical to discover the source of money, and for this reason one who receives money in good faith for valuable consideration prevails over the victim.

Id. at 159–60. See Newco Land Co. v. Martin, 213 S.W.2d 504, 509 (1948) (no obligation on a transferee of money to investigate transferor's title when accepted honestly and in good faith; such a transferee for value receives good title regardless of title of transferor).

Note that the court in *Transamerica Insurance Co*. justifies its decision on the fact that it is "generally impossible or impractical to discover the source of money." Does this mean that the same rule should apply in the rare case where a party is able to identify the money? Should the general impracticality of discovering the source of money govern in a particular case where a reasonable recipient would be suspicious? The court in *Berry* cites the *Williams Management Enterprises* case for the proposition that specifically identifiable money can be replevied. But that case dealt with an attempt by a corporation to recover money from an attorney to whom it had been delivered by a designated corporate official; it did not involve an attempt to recover the money from a third party transferee. Assume that in the course of a robbery, a bank delivers to the robber bags of money, each containing a canister of orange dye that explodes when the bag is opened. The day after the robbery, the police find a $100 bill sprayed with orange dye in a local stereo shop. The serial number on the bill matches that of one of the bills taken in the robbery. Assuming that the storeowner was unaware that the bills were stolen should he be required to surrender the $100 bill?

In his treatise on money, F.A. Mann concluded that the reason for avoiding the nemo dat rule with respect to money "is not that the loser cannot identify his money again, or in other words, that money has no earmark; 'for if his guineas or shilling had some private marks on them by which he could prove they had been his, he could not get them back from a bona-fide holder. The true reason of this rule is that by the use of money the interchange of all other properties is most readily accomplished. To fit it for its purpose the stamp denotes its value and possession alone must decide to whom it belongs.'" F.A. Mann, The Legal Aspect of Money 9–10 (5th ed. 1992). Note, however, the caveat that the holder be "bona fide." We will explore the limitations imposed by that requirement in Chapter 4, infra.

**2. Restitutionary Recovery of Stolen Money.** Would it matter in the prior example that the $100 bill had been received by the store as a deposit on a stereo that the storeowner still retained? In Lipkin Gorman v. Karpnale Ltd., [1991] 3 W.L.R. 10, a partner in a firm of solicitors stole £323,000 from the firm and gambled it, along with other funds, at a casino in London. The parties

agreed that the partner had lost at least £155,000 of the firm's money at the casino. The firm sought recovery from the casino. The Court of Appeal allowed the firm to recover an amount of money equivalent to the defalcating partner's net losses at the casino. Lord Templeman concluded that while there could be no action for conversion of money that had been taken as currency, "the law imposes an obligation on the recipient of stolen money to pay an equivalent sum to the victim if the recipient has been 'unjustly enriched' at the expense of the true owner." Lord Templeman opined:

> In my opinion in a claim for money had and received by a thief, the plaintiff victim must show that money belonging to him was paid by the thief to the defendant and that the defendant was unjustly enriched and remained unjustly enriched. An innocent recipient of stolen money may not be enriched at all; if Cass [the defalcating solicitor] had paid £20,000 derived from the solicitors to a car dealer for a motor car priced at £20,000, the car dealer would not have been enriched. The car dealer would have received £20,000 for a car worth £20,000. But an innocent recipient of stolen money will be enriched if the recipient has not given full consideration. If Cass had given £20,000 of the solicitors' money to a friend as a gift, the friend would have been enriched and unjustly enriched because a donee of stolen money cannot in good conscience rely on the bounty of the thief to deny restitution to the victim of the theft.

Id. at 15–16. The club, in Lord Templeman's view, had been unjustly enriched because it took the solicitors' money pursuant to a void gambling contract. The fact that the casino had given the partner chips with which to gamble in return for the money and agreed to pay his winnings was deemed by the court to be insufficient consideration to defeat the unjust enrichment claim.

American cases are in accord. Solomon v. Gibson, 615 A.2d 367 (Pa. Super. Ct. 1992), involved an action by the beneficiary of a trust to recover money that had been misappropriated by the representative of the estate and distributed to beneficiaries of other trusts in order to avoid detection of his prior embezzlement of funds from those trusts. The appellate court affirmed a dismissal of the complaint. It held that:

> [a] cause for money had and received entitles a party to relief where money is wrongfully diverted from its proper use and that money subsequently falls into the hands of a third party who has not given valuable consideration for it. The cause of action fails, however, where the recipient of the money has given consideration in exchange for the funds and is unaware that the money was procured by fraudulent means.

Id. at 368. The court reasoned that the embezzling representative had created a debt to the estates from which he initially misappropriated funds, and his repayment of that debt from the subsequent misappropriation constituted the beneficiaries of those trusts as bona fide purchasers of the money. Thus, they were entitled to retain the funds, of whose origin they were unaware.

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## Statutes and regulations pertaining to destruction of U.S. currency

**31 C.F.R §100.5 Mutilated paper currency.**

(a) Lawfully held paper currency of the United States which has been mutilated will be exchanged at face amount if clearly more than one-half of the original whole note remains. Fragments of such mutilated currency which are not clearly more than one-half of the original whole note will be exchanged at face value only if the Director, Bureau of Engraving and Printing, Department of the Treasury, is satisfied that the missing portions have been totally destroyed. The Director's judgment shall be based on such evidence of total destruction as is necessary and shall be final.

*Definitions*

(1) Mutilated currency is currency which has been damaged to the extent that (i) one-half or less of the original note remains or (ii) its condition is such that its value is questionable and the currency must be forwarded to the Treasury Department for examination by trained experts before any exchange is made.

(2) Unfit currency is currency which is unfit for further circulation because of its physical condition such as torn, dirty, limp, worn or defaced. Unfit currency should not be forwarded to the Treasury, but may be exchanged at commercial banks.

[47 FR 32044, July 23, 1982, as amended at 56 FR 10170, Mar. 11, 1991]

**31 C.F.R §100.6 Destroyed paper currency.**

No relief will be granted on account of lawfully held paper currency of the United States which has been totally destroyed.

**31 C.F.R §100.7 Treasury's liability.**

(a) Payment will be made to lawful holders of mutilated currency at full value when:

(1) Clearly more than 50% of a note identifiable as United States currency is present; or

(2) Fifty percent or less of a note identifiable as United States currency is present and the method of mutilation and supporting evidence demonstrate to the satisfaction of the Treasury that the missing portions have been totally destroyed.

(b) No payments will be made when:

(1) Fragments and remnants presented are not identifiable as United States currency; or

(2) Fragments and remnants presented which represent 50% or less of a note are identifiable as United States currency but the method of destruction and supporting evidence do not satisfy the Treasury that the missing portion has been totally destroyed.

(c) All cases will be handled under proper procedures to safeguard the funds and interests of the claimant. In some cases, the amount repaid will be less than the amount claimed. In other cases, the amount repaid may be greater. The amount paid will be determined by an examination made by trained mutilated currency examiners and governed by the above criteria.

(d) The Director of the Bureau of Engraving and Printing shall have final authority with respect to settlements for mutilated currency claims.

[47 FR 32044, July 23, 1982, as amended at 56 FR 10170, Mar. 11, 1991]

**18 U.S.C. §333. Mutilation of national bank obligations**

Whoever mutilates, cuts, defaces, disfigures, or perforates, or unites or cements together, or does any other thing to any bank bill, draft, note, or other evidence of debt issued by any national banking association, or Federal Reserve bank, or the Federal Reserve System, with intent to render such bank bill, draft, note, or other evidence of debt unfit to be reissued, shall be fined under this title or imprisoned not more than six months, or both.

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## *Krigel v. U.S*, 662 F.2d 741 (Ct. Cl., 1981)

HOGENSON, J. Plaintiff, Gerald S. Krigel, brought this action to recover $72,750 he claims that the United States owes him for its alleged failure to redeem fully a quantity of mutilated United States currency he turned in to the Department of the Treasury for redemption. It is concluded that defendant complied with its obligations in redeeming plaintiff's currency and plaintiff is not entitled to recover.

Mr. Krigel and his father, Ben Krigel, held joint savings accounts at two banks in Michigan. From these accounts plaintiff's father or his bookkeeper, Gloria Anderson, withdrew a total of $427,263.84 in cash between October 1974 and September 1976, primarily in one hundred dollar denominations. Plaintiff placed some of the currency withdrawn from these accounts into a metal box that he had hidden in the basement of his mother's house and used some of it in running his construction business.[1] The currency that Mr. Krigel had placed in the box was tightly packed and consisted of one hundred dollar and fifty dollar notes.

During the winter of 1976, the basement of the house in which plaintiff had hidden the box flooded. Plaintiff inspected the money after the flood and thought that it had not been damaged. In February 1977, plaintiff was preparing to move to Miami and intended to use the money to finance his new life in Florida. On February 3, 1977, plaintiff went to his mother's house to retrieve the box. Upon opening the box, plaintiff discovered that the currency had swollen in size, rotted, and become compressed into a solid mass. Due to the swelling, plaintiff could remove the money only by cutting the side of the box open with a pair of metal shears. The mass of currency was wet, mildewed, dirty, and was not recognizable as currency. When handled, the money would break into pieces.

Plaintiff and his fiancee went to her apartment where they attempted to dry the currency by placing it on the heating registers and by blowing air over it with hair dryers. After drying some of the currency and separating pieces of individual bills, plaintiff was able to reconstruct with scotch tape approximately $70,000 worth of bills. As the currency, which was spread over the floors of the apartment, dried, it

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[1] Plaintiff's evidence on the amounts of money that went into the box and his business is contradictory and inconclusive. Mr. Krigel testified that the cash withdrawn from the accounts went into the box, though he also testified that the box contained only $250,000 of the $427,263.84 withdrawn. Ms. Anderson testified that approximately $20,000- 22,000 of the money went into plaintiff's business and approximately $250,000-260,000 to Mr. Krigel personally. She also testified, however, that the difference between the amount withdrawn and the amount that went to Mr. Krigel personally would have been used in the business.
The only conclusion to be drawn from this evidence is that neither Mr. Krigel nor Ms. Anderson knew with any certainty how much money went into the business or to plaintiff himself.
That plaintiff did not know the precise amount of currency in the box is also indicated by his admission at trial that he did not know how the foreign currency that the government returned to him got into the box. Furthermore, plaintiff has contended that the box actually contained approximately $250,000. For purposes of this case, however, he has reduced that figure to $200,000 because it is a round number and hence easier to work with. It seems highly unlikely that plaintiff would so casually dismiss $50,000 if he in fact knew how much money the box contained.

became brittle and easily broke into pieces. At this point, plaintiff became afraid of further damaging the currency and stopped his efforts at reconstructing the money.

Early on the morning of February 4, 1977, plaintiff packed the money into plastic bags and placed the bags into his valise. He then checked into a nearby motel and from there called a former business associate, Harry Weitzer, for advice. When Mr. Weitzer arrived, plaintiff had spread the money out over the room. The money was by this time discolored and torn and closely resembled corn flakes. Through the efforts of Mr. Weitzer, plaintiff contacted the Mutilated Currency Branch of the United States Department of the Treasury, which redeems mutilated or otherwise damaged United States currency. Because plaintiff was very tired and nervous, Mr. Weitzer accompanied him to the Mutilated Currency Branch in Washington, D. C.

Plaintiff and Mr. Weitzer arrived at the Treasury Department on February 4, 1977, and met with Mrs. Louise G. Rice, Manager of the Mutilated Currency Branch. Mr. Krigel informed Mrs. Rice that he had $200,000 in damaged currency that he wished to have redeemed immediately. Mrs. Rice told plaintiff that his case appeared difficult and would take several months to process. She suggested to Mr. Krigel that he might be able to redeem the approximately $70,000 that he had reconstructed more quickly if he were to bring it to the Federal Reserve Bank in Detroit. Plaintiff accepted this advice and decided to take the reconstructed money back to Detroit, leaving the remainder with Mrs. Rice. Due to a misunderstanding as to the amount of money plaintiff would be taking with him, Mrs. Rice made out an initial receipt in the amount of "$70,000?". When Mrs. Rice realized she had written an incorrect amount, she crossed out the "$70,000?" and inserted "$130,000?". The receipt then read: "Mutilated currency claimed to be in the sum of $130,000? has been received for redemption. Its value, as determined by our examination and count, will be paid by check." Mrs. Rice then accepted plaintiff's currency, placed it into a box, sealed it, and delivered it to the control clerk. Neither Mrs. Rice nor Mr. Krigel attempted to count the currency left with the Mutilated Currency Branch.

Mr. Krigel returned to Detroit on February 4, 1977, and redeemed $73,800 of the reconstructed currency at the Federal Reserve Bank. The bank declined to redeem fragments of 7 one hundred dollar bills and returned them to plaintiff who sent them by certified mail to Mrs. Rice at the Treasury Department. The Mutilated Currency Branch received the fragments on February 10, 1977, and a currency examiner was assigned to reconstruct these bills. When the examiner discovered that the bills were a part of Mr. Krigel's original claim, she returned the fragments to the control clerk who consolidated them with the original claim. Initially, the control clerk assigned plaintiff's case to Mrs. Wilson, a currency examiner. Mrs. Rice removed Mrs. Wilson from the case when she stated that she would not be willing to go to court in the event that Mr. Krigel initiated a lawsuit on his claim. Mrs. Rice then assigned Mrs. Gracie Scruggs, a currency examiner who had no objections to the possibility of appearing in court, to plaintiff's case.

On February 24, 1977, Mrs. Scruggs obtained the sealed box containing plaintiff's currency, opened it in the presence of another currency examiner, and inventoried the contents. The box contained the scraps of the 7 one hundred dollar bills that plaintiff had mailed to the Department, a plastic bag with 2 stacks of the compressed currency, and another plastic bag containing small pieces of currency. On

March 2, 1977, Congressman John D. Dingell wrote to the Department of the Treasury asking that Mr. Krigel's case be processed as expeditiously as possible. As a result, plaintiff's claim was processed more rapidly than it would have been under ordinary circumstances

Because Mr. Krigel's claim exceeded $5,000, the Mutilated Currency Branch automatically notified the Internal Revenue Service, which orally requested that a "hold" be placed on plaintiff's claim. On March 7, 1977, Mr. Melvin Gabourel, of the Division of Currency Claims, informed the IRS by letter that if no written report requesting that payment to plaintiff be withheld were received within 30 days, the claim would be paid.

On April 18, 1977, Mrs. Scruggs completed the examination of plaintiff's damaged currency, and determined that it had a value of $54,750. In addition, she rejected $2,500 and some foreign currency as having no redemption value. . . . Following receipt of the $54,750, plaintiff filed suit in this court alleging that the United States failed to redeem $72,750 in mutilated currency that he had turned in to the Treasury Department. . . .

What obligation does exist where defendant redeems damaged currency arises from statute, 31 U.S.C. s 773a (1976), and is defined and limited by the regulations, 31 C.F.R. s 100.5 (1980), adopted pursuant to the statute. Thus, a person would be entitled to receive full value for mutilated currency only upon presenting more than one-half of the original note. In the present case, the defendant has fully complied with its obligations in redeeming damaged currency. Plaintiff has not shown that he delivered any more than $54,750 in redeemable currency to the defendant. If the redemption process is to be run in a just, orderly, and efficient manner, the responsibility for reconstructing and counting mutilated currency must lie with the Department of the Treasury, not with the persons seeking to have the money redeemed.

Of the money plaintiff turned in, defendant redeemed at full value currency in the amount of $54,750 and determined that $2,500 and some foreign currency had no redemption value. This total was short of the amount plaintiff claimed to have given to the Treasury by approximately $72,750. Plaintiff has alleged that this money was either stolen or misplaced by employees of defendant. This allegation is without evidentiary support. The more likely explanations for the alleged shortage are either that plaintiff was unaware of the precise amount of money in the box or that the currency in excess of $57,250, if any, had been reduced to unrecognizable fragments by rotting and plaintiff's subsequent efforts to reconstruct the currency.

Plaintiff further contends that defendant negligently breached its contract to redeem plaintiff's damaged currency by failing to redeem the $72,750. Because no contract ever arose, plaintiff at best states a claim of negligence, not breach of contract. A claim based on the careless performance of duty by a government employee sounds in tort and is beyond the jurisdiction of this court.

For the above reasons, it is concluded that plaintiff delivered to the Treasury Department on February 4, 1977, no more than $54,750 in redeemable currency and is not entitled to any further recovery. Plaintiff's petition should be dismissed.

## Statutes and regulations pertaining to counterfeiting

### 18 U.S.C. § 471. Obligations or securities of United States

Whoever, with intent to defraud, falsely makes, forges, counterfeits, or alters any obligation or other security of the United States, shall be fined under this title or imprisoned not more than 20 years, or both.

### 18 U.S.C. § 472. Uttering counterfeit obligations or securities

Whoever, with intent to defraud, passes, utters, publishes, or sells, or attempts to pass, utter, publish, or sell, or with like intent brings into the United States or keeps in possession or conceals any falsely made, forged, counterfeited, or altered obligation or other security of the United States, shall be fined under this title or imprisoned not more than 20 years, or both.

### 18 U.S.C. § 473. Dealing in counterfeit obligations or securities

Whoever buys, sells, exchanges, transfers, receives, or delivers any false, forged, counterfeited, or altered obligation or other security of the United States, with the intent that the same be passed, published, or used as true and genuine, shall be fined under this title or imprisoned not more than 20 years, or both.

### 18 U.S.C. § 492. Forfeiture of counterfeit paraphernalia

All counterfeits of any coins or obligations or other securities of the United States or of any foreign government, or any articles, devices, and other things made, possessed, or used in violation of this chapter or of sections 331-333, 335, 336, 642 or 1720, of this title, or any material or apparatus used or fitted or intended to be used, in the making of such counterfeits, articles, devices or things, found in the possession of any person without authority from the Secretary of the Treasury or other proper officer, shall be forfeited to the United States.

Whoever, having the custody or control of any such counterfeits, material, apparatus, articles, devices, or other things, fails or refuses to surrender possession thereof upon request by any authorized agent of the Treasury Department, or other proper officer, shall be fined under this title or imprisoned not more than one year, or both.

Whenever, except as hereinafter in this section provided, any person interested in any article, device, or other thing, or material or apparatus seized under this section files with the Secretary of the Treasury, before the disposition thereof, a petition for the remission or mitigation of such forfeiture, the Secretary of the Treasury, if he finds that such forfeiture was incurred without willful negligence or without any intention on the part of the petitioner to violate the law, or finds the existence of such mitigating circumstances as to justify the remission or the mitigation of such forfeiture, may remit or mitigate the same upon such terms and conditions as he deems reasonable and just.

**31 C.F.R. 100.3. Lawfully held coin and currencies in general**

The official agencies of the Department of the Treasury will continue to exchange lawfully held coins and currencies of the United States, dollar for dollar, for other coins and currencies which may be lawfully acquired and are legal tender for public and private debts. Paper currency of the United States which has been falsely altered and coins altered to render them for use as other denominations will not be redeemed since such currency and coins are subject to forfeiture under Title 18, United States Code, section 492. Persons receiving such currency and coins should notify immediately the nearest local office of the U.S. Secret Service of the Department of the Treasury, and hold the same pending advice from the Service.

**31 C.F.R. 403.1 Delivery of counterfeit obligations and other securities and coins authorized.**

Authority is hereby given to all banks and banking institutions of any nature whatsoever organized under general or special Federal or State statutes, to all U.S. Post Offices, and to all disbursing officers of the United States and their agents, to take possession of and deliver to the Treasury Department through the Secret Service all counterfeit obligations and other securities and coins of the United States or of any foreign government which shall be presented at their places of business.

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## *Money Laundering: A Banker's Guide to Avoiding Problems*, Office of the Comptroller of the Currency, December 2002

Money laundering is the criminal practice of filtering ill-gotten gains or "dirty" money through a series of transactions, so that the funds are "cleaned" to look like proceeds from legal activities. Money laundering is driven by criminal activities and conceals the true source, ownership, or use of funds. The International Monetary Fund has stated that the aggregate size of money laundering in the world could be somewhere between 2 and 5 percent of the world's gross domestic product.

Money laundering is a diverse and often complex process that need not involve cash transactions. Money laundering basically involves three independent steps that can occur simultaneously:

- Placement — placing, through deposits or other means, unlawful proceeds into the financial system.
- Layering — separating proceeds of criminal activity from their origin through the use of layers of complex financial transactions.
- Integration — using additional transactions to create the appearance of legality through the purchase of assets.

An effective anti-money laundering program will help minimize exposure to transaction, compliance, and reputation risks. Such a program should include account opening controls and the monitoring and reporting of suspicious activity. Identifying possible terrorist financing may be a more difficult endeavor, since transactions may originate from legitimate sources and involve relatively small amounts of money.

### Anti-Money Laundering and Anti-Terrorist Financing Legislation

*Bank Secrecy Act and Related Anti-Money Laundering Laws*

The U.S. has imposed many legislative and regulatory standards to help deter money laundering. The most significant of these are: the Bank Secrecy Act (Currency and Foreign Transactions Reporting Act of 1970); the Money Laundering Control Act of 1986; the Anti-Drug Abuse Act of 1988; Section 2532 of the Crime Control Act of 1990; Section 206 of the Federal Deposit Insurance Corporation Improvement Act of 1991; the Annunzio-Wylie Anti-Money Laundering Act (Title XV of the Housing and Community Development Act of 1992); the Money Laundering Suppression Act of 1994 (Title IV of the Riegle-Neal Community Development and Regulatory Improvement Act of 1994); the Money Laundering and Financial Crimes Strategy Act of 1998; and the USA PATRIOT Act (Title III, International Money Laundering Abatement and Anti-Terrorist Financing Act of 2001). Following are descriptions of these legislative measures.

**The Bank Secrecy Act (BSA)** was designed to fight drug trafficking, money laundering, and other crimes. Congress enacted the BSA to help prevent banks and other financial service providers from being used as intermediaries for, or being used to hide the transfer or deposit of money derived from, criminal activity. Among other items, the BSA created an investigative "paper trail" by establishing regulatory reporting standards and requirements (e.g., the Currency Transaction Report), and, through a later amendment, established recordkeeping requirements for wire transfers. The OCC monitors national bank compliance with the BSA and the implementing regulations 31 CFR 103.

**The Money Laundering Control Act of 1986** amended the BSA to enhance its effectiveness and to strengthen the government's ability to fight money laundering by making it a federal crime and by making structuring transactions to avoid BSA reporting requirements a criminal offense.

**The Anti-Drug Abuse Act of 1988** reinforced and supplemented anti-money laundering efforts by increasing the levels of penalties and sanctions for money laundering crimes and by requiring strict identification and documentation of cash purchases of certain monetary instruments.

**Section 2532 of the Crime Control Act of 1990** enhanced the federal banking agencies enforcement position by giving it powers to work with foreign banking authorities on investigations, examinations, or enforcement actions dealing with possible bank or currency transaction-related violations.

**Section 206 of The Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991** allowed the OCC and other bank supervisory authorities some latitude in disclosing to foreign bank regulatory or supervisory authorities information obtained during its supervisory role. Such disclosure must be appropriate, not prejudice the interests of the U.S., and must be subject to appropriate measures of confidentiality.

**The Annunzio-Wylie Anti-Money Laundering Act of 1992** increased penalties for depository institutions found guilty of money laundering. The act added several significant provisions to the BSA, including the reporting of suspicious transactions. The act also made the operation of an illegal money transmitting business a crime, and required that banking regulatory agencies formally consider revoking the charter of any depository institution convicted of money laundering.

**The Money Laundering Suppression Act of 1994** required regulators to develop enhanced examination procedures and to increase examiner training to improve the identification of money laundering schemes in financial institutions.

**The Money Laundering and Financial Crimes Strategy Act of 1998** required the Secretary of the Treasury, in consultation with the Attorney General and other relevant agencies, including state and local agencies, to coordinate and implement a national strategy to address money laundering.

**The USA PATRIOT Act** evolved as a response by the U.S. government to combat international terrorism. The act contained strong measures to prevent, detect, and prosecute terrorism and international money laundering. Signed into law on October 26, 2001, the act establishes new rules

and responsibilities affecting U.S. banking organizations, other financial institutions, and non-financial commercial businesses. The act:

- Provides the Secretary of the Treasury with the authority to impose special measures on jurisdictions, institutions, or transactions that are of "primary money-laundering concern."
- Requires financial institutions to increase their due diligence standards when dealing with foreign private banking and correspondent accounts.
- Prohibits correspondent accounts with foreign "shell" banks.
- Expands the ability of the public and private sectors to share information related to terrorism and money laundering investigations.
- Facilitates records access and requires banks to respond to regulatory requests for information within 120 hours.
- Establishes minimum standards for customer identification at account opening and requires checks against government-provided lists of known or suspected terrorists. Requires regulatory agencies to evaluate an institution's anti-money laundering record when considering bank mergers, acquisitions, and other applications for business combinations.
- Extends an anti-money laundering program requirement to all financial institutions.
- Increases the civil and criminal penalties for money laundering

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**What Bankers Can Do To Help**

This section highlights fundamental controls that are important for effective anti-money laundering systems and legal compliance. These controls include effective BSA compliance and customer due diligence programs, compliance with Office of Foreign Assets Control (OFAC) guidelines, suspicious activity monitoring and reporting systems, and risk-based anti-money laundering programs.

*Establish Effective BSA Compliance Programs*

Banks must have a BSA compliance program. National banks, as outlined in 12 CFR 21.21, must develop, administer, and maintain a program that ensures and monitors compliance with the BSA, including record keeping and reporting requirements. A bank's compliance program must be written, approved by the board of directors, and noted as such in the board meeting minutes. The program must also contain:

- A system of internal controls to ensure ongoing BSA compliance.

- Daily coordination and monitoring of compliance by a designated person.
- Training for appropriate personnel.
- Independent testing of compliance (by internal auditors or an outside party).

*Establish Effective Customer Due Diligence Systems and Monitoring Programs*

Comprehensive customer due diligence programs are banks' most effective weapons against being used unwittingly to launder money or to support terrorist financing. Knowing customers, including depositors and other users of bank services, requiring appropriate identification, and being alert to unusual or suspicious transactions can help deter and detect money laundering and terrorist financing schemes. Effective due diligence systems are also fundamental to help ensure compliance with suspicious activity reporting regulations.

These regulations require banks to report transactions that have no apparent lawful purpose or are not the sort in which the particular customer would be expected to engage.

The first and most essential step in effective customer due diligence is verifying the identity of the customer. Present guidelines for the opening of personal accounts include: obtain satisfactory customer identification; consider the proximity of the customer's residence or place of business; call-verify the customer's residence or place of employment; consider the source of funds used to open the account; and check prior banking references for larger accounts. Additional steps may include third-party references, verification services, and the use of Internet search techniques. In addition to verifying the legal status of businesses opening accounts, bankers should determine the source of funds and the beneficial owners of all accounts. The existence of most businesses can be verified through an information-reporting agency, banking references, or by visiting the customer's business.

The USA PATRIOT Act addresses several aspects of due diligence at account opening.

- Verification of Identification - Prescribes minimum standards that financial institutions must follow to verify the identity of both foreign and domestic customers at account opening. Financial institutions must consult U.S. government-provided lists of known or suspected terrorists or terrorist organizations and keep records of the information used to verify each customer's identity.
- Special Due Diligence for Correspondent and Private Banking Accounts - Sets forth general due diligence standards and provides additional standards for certain correspondent accounts and minimum standards for private banking accounts of non-U.S. persons.

Once the bank has established a customer relationship, it should be alert for unusual transactions. Although attempts to launder money through a financial institution can emanate from many different sources, certain products and services, types of entities, and geographic locations are more vulnerable to money laundering and/or terrorist financing. Accordingly, greater due diligence

standards should occur for higher risk relationships, both at the account opening and ongoing account activity stages.

*Screen Against OFAC and Other Government Lists*

OFAC administers and enforces economic and trade sanctions against targeted foreign countries, terrorism-sponsoring organizations, and international narcotics traffickers based on U.S. foreign policy and national security goals. OFAC acts under presidential wartime and national emergency powers and the authority granted by specific legislation to impose controls on transactions and to freeze foreign assets under U.S. jurisdiction. Many of the sanctions are based on United Nations and other international mandates, are multilateral in scope, and involve close cooperation with allied countries. OFAC has promulgated regulations to help administer its sanctions program. All U.S. persons and entities, including banks, federal branches and agencies, international banking facilities, and overseas branches, offices and subsidiaries of U.S. banks must comply with the laws and OFAC-issued regulations. In general, these regulations:

- Require blocking of accounts and other assets of specified countries, entities, and persons.
- Prohibit unlicensed trade and financial transactions with specified countries, entities, and persons.

U.S. law requires that assets and accounts be blocked when such property is located in the United States, is held by U.S. persons or entities, or comes into the possession or control of U.S. persons or entities. The definition of assets and property is broad and includes anything of direct, indirect, present, future, and contingent value (including all types of bank transactions). Banks should establish and maintain effective OFAC compliance programs. This program should include written policies and procedures for checking transactions for possible OFAC violations, designating a person responsible for day-to-day compliance, establishing and maintaining strong lines of communication between departments of the bank, employee training, and an annual in-depth audit of OFAC compliance. The compliance program should also include procedures for maintaining current lists of blocked countries, entities, and persons and for disseminating such information throughout the bank's domestic operations and its offshore branches and offices. All new accounts, including deposit, loan, trust, or other relationships must be compared with the OFAC lists when accounts are opened. Established accounts should be compared regularly with the current and updated OFAC lists. Wire transfers, letters of credit, and non-customer transactions, such as funds transfers, should be compared with the OFAC lists before being conducted.

Federal law enforcement may request information about suspected terrorists and money launderers relevant to investigations. Bankers must review their records for accounts and transactions and notify the Financial Crimes Enforcement Network (FinCEN) of any “matches” in accordance with the instructions provided.

*Establish an Effective Suspicious Activity Monitoring and Reporting Process*

An effective BSA compliance program includes controls and measures to identify and report suspicious transactions promptly. Financial institutions must employ appropriate customer due diligence to effectively evaluate transactions and conclude whether to file a suspicious activity report (SAR).

Banks must file SARs within prescribed timeframes. SARs must be filed following the discovery of transactions aggregating $5,000 or more that involve potential money laundering or violations of the BSA if the bank knows, suspects, or has reason to suspect that the transaction:

- Involves funds from illegal activities or is conducted to hide illicit funds or assets in a plan to violate or evade any law or regulation or to avoid transaction reporting requirements under federal law.
- Is designed to evade any of the BSA regulations.
- Has no business or apparent lawful purpose or is not the sort in which the customer would normally be expected to engage, and the bank knows of no reasonable explanation for the transaction after examining available facts, including the background and transaction purpose.

The bank's board of directors must be notified of SAR filings, and such filings and information contained therein must remain confidential, unless properly requested by law enforcement. Financial institutions are protected from liability to customers for disclosures of possible violations of law under safe harbor provisions. Additionally, the safe harbor covers all reports (including supporting SAR documentation) of suspected or known criminal violations and suspicious activities to law enforcement and the financial institution's supervisory authority. There are more than 200 predicate crimes for money laundering. These include funds that support terrorist activity, profits from illegal drug sales, and structuring of transactions to avoid record keeping and reporting requirements. A bank does not have to conduct an investigation to determine if funds were derived illegally. Instead, banks must report suspicious activity. Law enforcement will determine if a predicate crime associated with the funds has been violated.

*Develop Risk-Based Anti-Money Laundering Programs*

Bank anti-money laundering programs should be structured to address the controls needed based on the risks posed by the products and services offered, customers served, and geographies. The following are examples of high-risk products and services, customers, and geographic locations of which banks should be aware when developing a risk-based anti-money laundering program.

HIGH-RISK PRODUCTS AND SERVICES

**Wire Transfer/International Correspondent Banking** -Money launderers have become more creative in their use of wire transfer systems, particularly relating to correspondent bank accounts. Correspondent accounts are accounts banks maintain with each other to facilitate transactions for themselves and their customers. Although these accounts were developed and are used primarily for legitimate purposes, international correspondent bank accounts may pose increased risk of illicit activities. The Minority Staff of the U.S. Senate Permanent Subcommittee on Investigations issued

a report on February 5, 2001, entitled "Correspondent Banking and Money Laundering." The report summarizes a year-long investigation into correspondent banking and its use as a tool for laundering money. The investigation found that U.S. banks through international correspondent accounts could become conduits for dirty money flowing into the American financial system.

Bankers must exercise due diligence in determining risks associated with each of their foreign correspondent accounts. Factors to consider include account purpose, location of the foreign bank, nature of the banking license, the correspondent's money laundering detection and prevention controls, and the extent of bank regulation and supervision in the foreign country. The USA PATRIOT Act also requires the maintenance of certain records for foreign correspondent accounts, mandates enhanced due diligence for select accounts, and precludes maintaining correspondent accounts for "shell" banks.

**Private Banking Relationships** - Private banking has many definitions, but generally is considered the personal or discreet offering of a wide variety of financial services and products to the affluent market. These operations typically offer all- inclusive personalized services. Individuals, commercial businesses, law firms, investment advisors, trusts, and personal investment companies may open private banking accounts. Due diligence for private banking clients usually includes a more extensive process than for retail customers, including confirming references and/or conducting background checks. It is critical to understand a client's source of wealth, needs, and expected transactions. The private banking client's expected level and type of transactions should be documented. Private banking relationships can be complex and systems to monitor and report suspicious activity should be designed to reasonably evaluate the client's total activities.

Senior foreign public officials are often private banking clients. In January 2001, "Guidance on Enhanced Scrutiny for Transactions that May Involve the Proceeds of Foreign Official Corruption" was issued by the Department of Treasury, the Office of the Comptroller of the Currency, the Office of Thrift Supervision, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Department of State. The guidance contains suggested procedures for account opening and monitoring for persons known to be senior foreign political figures, their immediate family members and their close associates. It also contains a list of questionable or suspicious activities that may warrant enhanced scrutiny of transactions involving such persons. In addition, the USA PATRIOT Act requires enhanced due diligence and scrutiny for private banking accounts requested or maintained by senior foreign political figures, their immediate family members, and their close associates. U.S. financial institutions should apply these principles and requirements to private banking activities and accounts.

**Electronic Banking** - Electronic banking is a broad term encompassing delivery of information, products, and services by electronic means (such as telephone lines, personal computers, automated teller machines, and automated clearing houses). This product offering continues to grow at a rapid pace. Although the extent of services varies, typical Internet bank services include credit cards, loans, deposits, wire transfers, and bill-paying services. Electronic banking is

vulnerable to money laundering and terrorist financing because of its user anonymity, rapid transaction speed, and its wide geographic availability.

### HIGH-RISK CUSTOMERS

Certain kinds of businesses may require enhanced customer due diligence at account opening and ongoing transaction review. Banks should conduct a risk assessment and ensure that controls are proportionate to the customer's risk level. The following should be considered when doing business with high-risk customers: their anti-money laundering systems; potential for being abused by money launderers; their level of risk; and the bank's ability to control that risk. Entities that traditionally have been identified as high-risk include:

- Nonbank Financial Institutions (NBFI), including Money Service Businesses -Typical examples include security brokers and dealers, check-cashing services, currency dealers and exchangers, and issuers, sellers, or redeemers of traveler's checks, money orders, or stored value cards. Card clubs, gambling casinos, and money transmitters are also NBFIs.
- Non-governmental organizations (e.g. charitable organizations).
- Offshore corporations, bearer share corporations, and banks located in tax and/or secrecy havens and jurisdictions designated as non-cooperative in the fight against money laundering.
- Cash-intensive businesses (convenience stores, parking garages, restaurants, retail stores).

### HIGH-RISK GEOGRAPHIC LOCATIONS

Identifying high-risk geographic locations is essential to a bank's anti-money laundering program. U.S. banks should understand and evaluate the specific risks associated with doing business in, opening accounts for customers from, or facilitating transactions involving high-risk geographic locations. Information regarding possible high-risk geographic locations is available from several sources including:

- Jurisdictions identified by intergovernmental organizations (e.g., FATF) as non-cooperative in the fight against money laundering. Such locations have become widely known as non-cooperative countries and territories (NCCT).
- Countries/jurisdictions identified by the U.S. Department of State's annual International Narcotics Control Strategy Report (INCSR) as “primary concern.”
- Geographies identified by OFAC.
- Jurisdictions designated by the Secretary of the Treasury as being of primary money laundering concern as authorized by the USA PATRIOT Act.
- Jurisdictions identified by bank management.

Identifying customers and transactions from high-risk geographic locations is crucial in controlling money laundering and terrorist financing risk. By obtaining such information, bankers can develop or modify policies, procedures, and controls addressing the risks associated with those locations.

**What Bankers Should Look For**

The following are examples of potentially suspicious activities or "red flags" for both money laundering and terrorist financing. These lists are not all-inclusive, but may help bankers recognize possible money laundering and terrorist financing schemes. Banks should be focused primarily on reporting suspicious transactions, not on determining that the transactions are in fact linked to money laundering or terrorist financing.

The examples mentioned may warrant attention, but simply because a transaction appears on the list does not mean it involves suspicious activity. Closer scrutiny will help determine whether the transactions or activities reflect suspicious activities rather than legitimate business activities and whether a SAR should be filed.

*Money Laundering Red Flags*

CUSTOMERS WHO PROVIDE INSUFFICIENT OR SUSPICIOUS INFORMATION

- A customer uses unusual or suspicious identification documents that cannot be readily verified.
- A business is reluctant, when establishing a new account, to provide complete information about the nature and purpose of its business, anticipated account activity, prior banking relationships, names of its officers and directors, or information on its business location.
- A customer's home/business telephone is disconnected.
- The customer's background differs from that which would be expected based on his or her business activities.
- A customer makes frequent or large transactions and has no record of past or present employment experience.

EFFORTS TO AVOID REPORTING OR RECORD KEEPING REQUIREMENT

- A customer or group tries to persuade a bank employee to not file required reports or to not maintain required records.
- A customer is reluctant to provide information needed to file a mandatory report, to have the report filed, or to proceed with a transaction after being informed that the report must be filed.
- A customer is reluctant to furnish identification when purchasing negotiable instruments in recordable amounts.
- A business or new customer asks to be exempted from reporting or record-keeping requirements.

- A customer uses the automated teller machine to make several bank deposits below a specified threshold.

CERTAIN FUNDS TRANSFER ACTIVITIES

- Wire transfer activity to/from a financial secrecy haven, or high-risk geographic location without an apparent business reason, or when it is inconsistent with the customer's business or history.
- Many small, incoming wire transfers of funds received, or deposits made using checks and money orders. Almost immediately, all or most are wired to another city or country in a manner inconsistent with the customer's business or history.
- Large incoming wire transfers on behalf of a foreign client with little or no explicit reason.
- Wire activity that is unexplained, repetitive, or shows unusual patterns.
- Payments or receipts with no apparent links to legitimate contracts, goods, or services.

ACTIVITY INCONSISTENT WITH THE CUSTOMER'S BUSINESS

- The currency transaction patterns of a business show a sudden change inconsistent with normal activities.
- A large volume of cashier's checks, money orders, and/or wire transfers deposited into, or purchased through, an account when the nature of the account holder's business would not appear to justify such activity.
- A retail business has dramatically different patterns of cash deposits from similar businesses in the same general location.
- Unusual transfer of funds among related accounts, or accounts that involve the same or related principals.
- The owner of both a retail business and a check-cashing service does not ask for cash when depositing checks, possibly indicating the availability of another source of cash.

OTHER SUSPICIOUS CUSTOMER ACTIVITY

- Frequent exchanges of small dollar denominations for large dollar denominations.
- Frequent deposits of currency wrapped in currency straps or currency wrapped in rubber bands that are disorganized and do not balance when counted.
- A customer who purchases a number of cashier's checks, money orders, or traveler's checks for large amounts under a specified threshold.
- Money orders deposited by mail, which are numbered sequentially or have unusual symbols or stamps on them.

- Suspicious movements of funds from one bank into another, then back into the first bank: 1) purchasing cashier's checks from bank A; 2) opening up a checking account at bank B; 3) depositing the cashier's checks into a checking account at bank B; and, 4) wire transferring the funds from the checking account at bank B into an account at bank A.

CHANGES IN BANK-TO-BANK TRANSACTIONS

- A rapid increase in the size and frequency of cash deposits with no corresponding increase in non-cash deposits.
- Inability to track the true account holder of correspondent or concentration account transactions.
- Significant turnover in large denomination bills that would appear uncharacteristic given the bank's location.
- Significant changes in currency shipment patterns between correspondent banks.

**Bank Employees**

- Lavish lifestyle that cannot be supported by an employee's salary.
- Failure to conform with recognized systems and controls, particularly in private banking.
- Reluctance to take a vacation.

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**Reports That Can Help Bankers Identify Suspicious Transactions**

Anumber of readily available reports, in addition to the OFAC List, the NCCT List, and other government lists, can be generated by banks to assist them in the fight against money laundering. Following are some internal reports routinely available through bank service providers.

**Cash Transaction Reports** - Most bank information service providers offer reports that identify cash activity and/or cash activity greater than $10,000. These reports assist bankers with filing currency transaction reports (CTRs) and in identifying suspicious cash activity. Some larger banks have software systems to assist them in completing CTRs accurately, especially when they have multiple locations. Most vendor software systems include standard suspicious cash activity reports that typically filter cash activity in three forms: 1) cash activity including multiple transactions greater than $10,000; 2) cash activity (single and multiple transactions) just below the $10,000 reporting threshold (e.g., between $8,000 - $10,000); and, 3) cash transactions involving multiple lower-dollar transactions (e.g., $3,000) which over a period of time (e.g., 15 days) aggregate to a substantial sum of money. Such filtering reports, when implemented either through the purchase of a vender software system or through requests from the information service provider, will enhance significantly a bank's ability to identify and evaluate unusual cash transactions.

**Wire Transfer Records / Logs** -The BSA requires wire transfer records. Periodic review of this information can assist banks in identifying patterns of unusual activity. A periodic review of the wire records/logs in banks with low wire transfer activity is usually sufficient to identify unusual activity. For banks with greater wire activity, use of spreadsheets or vendor software, is an efficient way to review wire activity for unusual patterns. Most vendor software systems include standard suspicious activity filter reports. These reports typically focus on identifying certain higher risk geographies and larger dollar wire transactions (persons and corporations). Each bank should establish its own filtering criteria for both personal and corporate wire volumes based on their customer base. Non-customer wire transactions and Pay Upon Proper Identification (PUPID) transactions should always be reviewed for unusual activity. Monetary Instrument Records û Records on monetary instrument sales are required in certain circumstances by the BSA. Such records can assist bankers in identifying possible currency structuring3 through the purchase of cashier's checks, money orders, or traveler's checks in amounts of $3,000 to $10,000. A periodic review of these records can also help identify frequent purchasers and remitters of monetary instruments and common payees.

**Velocity of Funds Report** -A velocity of funds report reflects the total debits and credits flowing through a particular account over a specific period (e.g., 30 days). This report can be used to identify customer accounts with substantial funds flow relative to other accounts. A review of this information can assist bankers to identify customers with a high velocity of funds flow and those with unusual activity.

## *U.S. v. Campbell*, 977 F.2d 854 (4th Cir., 1992)

ERVIN, Chief Judge:

In the summer of 1989, Ellen Campbell was a licensed real estate agent working at Lake Norman Realty in Mooresville, North Carolina. During the same period, Mark Lawing was a drug dealer in Kannapolis, North Carolina. Lawing decided to buy a house on Lake Norman. He obtained Campbell's business card from Lake Norman Realty's Mooresville office, called Campbell, and scheduled an appointment to look at houses.

Over the course of about five weeks, Lawing met with Campbell approximately once a week and looked at a total of ten to twelve houses. Lawing and Campbell also had numerous phone conversations. Lawing represented himself to Campbell as the owner of a legitimate business, L & N Autocraft, which purportedly performed automobile customizing services. When meeting with Campbell, Lawing would travel in either a red Porsche he owned or a gold Porsche owned by a fellow drug dealer, Randy Sweatt, who would usually accompany Lawing. During the trips to look at houses, which occurred during normal business hours, Lawing would bring his cellular phone and would often consume food and beer with Sweatt. At one point, Lawing brought a briefcase containing $20,000 in cash, showing the money to Campbell to demonstrate his ability to purchase a house.

Lawing eventually settled upon a house listed for $191,000 and owned by Edward and Nancy Guy Fortier. The listing with the Fortiers had been secured by Sara Fox, another real estate agent with Lake Norman Realty. After negotiations, Lawing and the Fortiers agreed on a price of $182,500, and entered into a written contract. Lawing was unable to secure a loan and decided to ask the Fortiers to accept $60,000 under the table in cash and to lower the contract price to $122,500.[2] Lawing contacted Campbell and informed her of this proposal. Campbell relayed the proposal to Fox, who forwarded the offer to the Fortiers. The Fortiers agreed, and Fox had the Fortiers execute a new listing agreement which lowered the sales price and increased the commission percentage (in order to protect the realtors' profits on the sale).

Thereafter Lawing met the Fortiers, Fox and Campbell in the Mooresville sales office with $60,000 in cash. The money was wrapped in small bundles and carried in a brown paper grocery bag. The money was counted, and a new contract was executed reflecting a sales price of $122,500. Lawing tipped both Fox and Campbell with "a couple of hundred dollars." Id. at 1261-62.

William Austin, the closing attorney, prepared closing documents, including HUD-1 and 1099-S forms, reflecting a sales price of $122,500, based on the information provided by Campbell. Campbell, Fox, Austin, Lawing, Lawing's parents and the Fortiers were all present at the closing. The closing documents were signed, all reflecting a sales price of $122,500.

Campbell was indicted on a three count indictment alleging: 1) money laundering, in violation of 18 U.S.C. § 1956(a)(1)(B)(i); 2) engaging in a transaction in criminally derived property, in violation of 18 U.S.C. § 1957(a); and 3) causing a false statement (the HUD-1 form) to be filed with a government agency, in violation of 18 U.S.C. § 1001. She was tried and convicted by a jury on all three counts. After the verdict, the district court granted Campbell's motion for judgment of acquittal with respect to the money laundering and transaction in criminally derived property counts. The district court also conditionally ordered a new trial on these counts if the judgment of acquittal was reversed on appeal. The Government appeals.[3]

II.

The money laundering statute under which Campbell was charged applies to any person who:

> knowing that the property involved in a financial transaction represents the proceeds of some form of unlawful activity, conducts or attempts to conduct such a financial transaction which in fact involves the proceeds of specified unlawful activity ... knowing that the transaction is designed in whole or in

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[2] Lawing's explanation to Campbell of this unorthodox arrangement was that the lower purchase price would allow Lawing's parents to qualify for a mortgage. Lawing would then make the mortgage payments on his parent's behalf. Lawing justified the secrecy of the arrangement by explaining that his parents had to remain unaware of the $60,000 payment because the only way he could induce their involvement was to convince them he was getting an excellent bargain on the real estate.

[3] Campbell does not appeal her conviction for causing a false statement to be filed with a government agency.

> part ... to conceal or disguise the nature, the location, the source, the ownership, or the control of the proceeds of specified unlawful activity....

18 U.S.C. § 1956(a)(1). The district court found, and Campbell does not dispute, that there was adequate evidence for the jury to find that Campbell conducted a financial transaction which in fact involved the proceeds of Lawing's illegal drug activities. The central issue in contention is whether there was sufficient evidence for the jury to find that Campbell possessed the knowledge that: (1) Lawing's funds were the proceeds of illegal activity, and (2) the transaction was designed to disguise the nature of those proceeds.

In assessing Campbell's culpability, it must be noted that the statute requires actual subjective knowledge. Campbell cannot be convicted on what she objectively should have known. However, this requirement is softened somewhat by the doctrine of willful blindness. In this case, the jury was instructed that:

> The element of knowledge may be satisfied by inferences drawn from proof that a defendant deliberately closed her eyes to what would otherwise have been obvious to her. A finding beyond a reasonable doubt of a conscious purpose to avoid enlightenment would permit an inference of knowledge. Stated another way, a defendant's knowledge of a fact may be inferred upon willful blindness to the existence of a fact.
>
> It is entirely up to you as to whether you find any deliberate closing of the eyes and inferences to be drawn from any evidence. A showing of negligence is not sufficient to support a finding of willfulness or knowledge.
>
> I caution you that the willful blindness charge does not authorize you to find that the defendant acted knowingly because she should have known what was occurring when the property at 763 Sundown Road was being sold, or that in the exercise of hindsight she should have known what was occurring or because she was negligent in failing to recognize what was occurring or even because she was reckless or foolish in failing to recognize what was occurring. Instead, the Government must prove beyond a reasonable doubt that the defendant purposely and deliberately contrived to avoid learning all of the facts.

J.A. at 495-96. Neither party disputes the adequacy of these instructions on willful blindness or their applicability to this case. . .

In its opinion supporting the entry of the judgment of acquittal, the district court erred in interpreting the elements of the offense. After correctly reciting the elements of the statute, the court stated, "in a prosecution against a party other than the drug dealer," the Government must show "a purpose of concealment " and "knowledge of the drug dealer's activities." Campbell, 777 F.Supp. at 1265. (emphasis added). This assertion misstates the Government's burden. The Government need not prove that the defendant had the purpose of concealing the proceeds of illegal activity. Instead, as the plain language of the statute suggests, the Government must only show that the defendant possessed the knowledge that the transaction was designed to conceal illegal proceeds.

This distinction is critical in cases such as the present one, in which the defendant is a person other than the individual who is the source of the tainted money. It is clear from the record that Campbell

herself did not act with the purpose of concealing drug proceeds. Her motive, without question, was to close the real estate deal and collect the resulting commission, without regard to the source of the money or the effect of the transaction in concealing a portion of the purchase price. However, Campbell's motivations are irrelevant. Under the terms of the statute, the relevant question is not Campbell's purpose, but rather her knowledge of Lawing's purpose.[4]

The sufficiency of evidence regarding Campbell's knowledge of Lawing's purpose depends on whether Campbell was aware of Lawing's status as a drug dealer. Assuming for the moment that Campbell knew that Lawing's funds were derived from illegal activity, then the under the table transfer of $60,000 in cash would have been sufficient, by itself, to allow the jury to find that Campbell knew, or was willfully blind to the fact, that the transaction was designed for an illicit purpose. Only if Campbell was oblivious to the illicit nature of Lawing's funds could she credibly argue that she believed Lawing's explanation of the under the table transfer of cash and was unaware of the money laundering potential of the transaction. . . . As a result, we find that, in this case, the knowledge components of the money laundering statute collapse into a single inquiry: Did Campbell know that Lawing's funds were derived from an illegal source? . . .

The evidence pointing to Campbell's knowledge of Lawing's illegal activities is not overwhelming. First, we find that the district court correctly excluded from consideration testimony by Sweatt that Lawing was a "known" drug dealer. Kannapolis, where Lawing's operations were located, is approximately fifteen miles from Mooresville, where Campbell lived and worked, and, as the district court pointed out, there was no indication that Lawing's reputation extended over such an extensive "community."

However, the district court also downplayed evidence that we find to be highly relevant. Sara Fox, the listing broker, testified at trial that Campbell had stated prior to the sale that the funds "may have been drug money." The trial court discounted this testimony because it conflicted with Fox's grand jury testimony that she did not recall Campbell ever indicating that Lawing was involved with drugs. In evaluating the testimony in this manner, the trial court made an impermissible judgment on witness credibility--a judgment that was clearly within the exclusive province of the jury. When ruling on a motion for judgment of acquittal the district court is obligated to weigh the evidence in the light most favorable to the Government. Under that standard, Fox's testimony regarding Campbell's statement that the funds "may have been drug money" should have been accepted as completely true.

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[4] We have no difficulty in finding that Lawing s purpose satisfied the statutory requirement that the transaction be "designed in whole or in part ... to conceal or disguise the nature, the location, the source, the ownership, or the control of the proceeds of specified unlawful activity...." 18 U.S.C. § 1956(a)(1)(B). The omission of $60,000 from all documentation regarding the sales price of the property clearly satisfies this standard--concealing both the nature and the location of Lawing's illegally derived funds. See United States v. Lovett, 964 F.2d 1029, 1034 (10th Cir.1992) (money laundering transaction need not necessarily conceal the identity of the participants in the transaction; concealment of the funds themselves is sufficient), petition for cert. filed, June 22, 1992. Accordingly, we need not address the Government's alternative argument that Lawing concealed ownership of the funds by placing title to the Lake Norman property in the name of his parents.

In addition, the Government presented extensive evidence regarding Lawing's lifestyle. This evidence showed that Lawing and his companion both drove new Porsches, and that Lawing carried a cellular phone, flashed vast amounts of cash, and was able to be away from his purportedly legitimate business for long stretches of time during normal working hours. The district court conceded that this evidence "is not wholely [sic] irrelevant" to Campbell's knowledge of Lawing's true occupation, but noted that Lawing's lifestyle was not inconsistent with that of many of the other inhabitants of the affluent Lake Norman area who were not drug dealers. Again, we find that the district court has drawn inferences from the evidence which, while possibly well-founded, are not the only inferences that can be drawn. It should have been left to the jury to decide whether or not the Government's evidence of Lawing's lifestyle was sufficient to negate the credibility of Campbell's assertion that she believed Lawing to be a legitimate businessman.

We find that the evidence of Lawing's lifestyle, the testimony concerning Campbell's statement that the money "might have been drug money," and the fraudulent nature of the transaction in which Campbell was asked to participate were sufficient to create a question for the jury concerning whether Campbell "deliberately closed her eyes to what would otherwise have been obvious to her." As a result, we find that a reasonable jury could have found that Campbell was willfully blind to the fact that Lawing was a drug dealer and the fact that the purchase of the Lake Norman property was intended, at least in part, to conceal the proceeds of Lawing's drug selling operation. Accordingly, we reverse the judgment of acquittal on the money laundering charge.

III.

The statute under which Campbell was charged in Count 2 provides:

> Whoever ... knowingly engages or attempts to engage in a monetary transaction in criminally derived property that is of a value greater than $10,000 and is derived from specified unlawful activity, shall be punished as provided in subsection (b).

18 U.S.C. § 1957(a). The parties do not dispute that Campbell engaged in a monetary transaction in property of a value in excess of $10,000 or that the property was derived from "specified unlawful activity" as defined by the statute. Once again, the dispositive question is whether Campbell knew that Lawing's funds were the proceeds of criminal activity. As such, the discussion above with regard to the money laundering charge is completely applicable here. Because a jury could reasonably find that Campbell knew of, or was willfully blind to, Lawing's true occupation, it was error for the district court to grant a judgment of acquittal on this count as well. . .

The district court's entry of judgment of acquittal on Counts 1 and 2 is hereby reversed. The conditional grant of a new trial on these counts is affirmed.

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## Margaret Atwood, THE HANDMAID'S TALE (1986), pp. 173-74, 177-78

All those women having jobs: hard to imagine, now, but thousands of them had jobs, millions. It was considered the normal thing. Now it's like remembering the paper money, when they still had that. My mother kept some of it, pasted into her scrapbook along with the early photos. It was obsolete by then, you couldn't buy anything with it. Pieces of paper, thickish, greasy to the touch, green-colored, with pictures on each side, some old man in a wig and on the other side a pyramid with an eye above it. It said *In God We Trust*. My mother said people used to have signs beside their cash registers, for a joke: *In God We Trust, All Others Pay Cash*. That would be blasphemy now.

You had to take those pieces of paper with you when you went shopping, though by the time I was nine or ten most people used plastic cards. Not for the groceries though, that came later. It seems so primitive, totemistic even, like cowry shells. I must have used that kind of money myself, a little, before everything went on the Compubank.

I guess that's how they were able to do it, in the way they did, all at once, without anyone knowing beforehand. If there had still been portable money, it would have been more difficult.

It was after the catastrophe, when they shot the president and machine-gunned the Congress and the army declared a state of emergency. They blamed it on the Islamic fanatics, at the time.

* * * * *

When I got to the corner store, the usual woman wasn't there.

Instead there was a man, a young man, he couldn't have been more than twenty.

She sick? I said as I handed him my card.

Who? he said, aggressively I thought.

The woman who's usually here, I said.

How would I know, he said. He was punching my number in, studying each number, punching with one finger. He obviously hadn't done it before.

Sorry, he said. This number's not valid.

That's ridiculous, I said. It must be, I've got thousands in my account. I just got the statement two days ago. Try it again.

It's not valid, he repeated obstinately. See that red light? Means it's not valid.

You must have made a mistake, I said. Try it again.

He shrugged and gave me a fed-up smile, but he did try the number again. This time I watched his fingers, on each number, and checked the numbers that came up in the window. It was my number all right, but there was the red light again.

See? he said again, still with that smile, as if he knew some private joke he wasn't going to tell me.

I'll phone them from the office, I said. The system had fouled up before, but a few phone calls usually straightened it out. Still, I was angry, as if I'd been unjustly accused of something I didn't even know about. As if I'd made the mistake myself.

You do that, he said indifferently. I left the cigarettes on the counter, since I hadn't paid for them. I figured I could borrow some at work.

I did phone from the office, but all I got was a recording. The lines were overloaded, the recording said. Could I please phone back?

The lines stayed overloaded all morning, as far as I could tell. I phoned back several times, but no luck. Even that wasn't too unusual.

[Later that day, the narrator's best friend visits her]

Tried getting anything on your Compucard today?

Yes, I said. I told her about that too.

They've frozen them, she said. Mine too. Any account with an F on it instead of an M. All they needed to do is push a few buttons. We're cut off.

But I've got over two thousand dollars in the bank, I said, as if my own account was the only one that mattered.

Women can't hold property anymore, she said. It's a new law. Turned on the TV today?

No, I said.

It's on there, she said. All over the place. She was not stunned, the way I was. In some strange way she was gleeful, as if this was what she'd been expecting for some time and now she'd been proven right. She even looked more energetic, more determined. Luke can use your Compucount for you, she said. They'll transfer your number to him, or that's what they say. Husband or male next of kin.

But why? I said. Why did they?

Ours is not to reason why, said Moira. They had to do it that way, the Compucounts and the jobs both at once. Can you picture the airports, otherwise? They don't want us going anywhere, you can bet on that.

**Jeffrey M. Lacker, *Should We Subsidize the Use of Currency*? ECONOMIC QUARTERLY, Winter 1993, v.79, n. 1, p. 47.**

Although it is common to think of government money as virtually costless to produce, the real resource costs are substantial, as shown in Table 1. (Table omitted) In 1991 the cost of providing currency was $393.2 million, most of which was incurred in verifying and sorting deposits of used currency and replacing unfit notes with new currency.

Under current arrangements, banks can deposit used currency and withdraw fit currency at par. Thus currency costs are not borne directly by banks, but instead are funded out of general government revenues.(1) True, restrictions on banks' deposit and withdrawal of currency help limit Federal Reserve costs, but these costs are not borne by users. In contrast, all of the costs associated with the provision of reserve balances are recovered through "service fees," as mandated by the Monetary Control Act of 1980. . .

Depository institutions can hold reserve account balances at a Federal Reserve Bank. These reserves are book-entry demand deposits that can be transferred to other banks. Reserve account balances are also used for automated clearing- house transactions in which recurring payments are made via prearranged wire transfers. Federal Reserve Banks charge fees for transfers of reserve balances and generally recover all of the associated costs.

A branch or office of a bank may withdraw currency and coin from a Federal Reserve Bank, deducting the par value of the withdrawal from its reserve balance. Deposits of currency and coin are credited at par. In both cases the bank pays for transportation, generally via an armored carrier service.

Incoming deposits of currency at Federal Reserve Banks are processed on high-speed equipment that removes wrong denomination and counterfeit notes and verifies the number of notes in the deposit. In addition, the equipment re- moves and destroys "unfit" notes that have become soiled in circulation.(4) The remaining "fit" notes are repackaged and stored. Withdrawals of currency are met with fit used notes and newly printed notes from the Bureau of Engraving and Printing. Banks are not allowed to request new notes, but must accept the mix that is sent to them. Coins are deposited and withdrawn in bags of standard size and are verified by weighing.

Banks can process, sort, and reuse currency themselves. Tellers count and sort currency, holding some for future use, and send unsatisfactory notes, suspected counterfeits or "excess" notes to the Fed. Banks with more than one branch sometimes process currency centrally at a "cash room," collecting currency from branches with net inflows, and disbursing it to branches with net outflows. Some banks sell currency directly to other neighboring institutions. Some private transfers of currency are intermediate by armored carrier companies. The same high-speed currency-processing equipment used by the Federal Reserve is available to private institutions, some of which, particularly larger institutions, run currency-processing operations similar to the Fed's (although they do not destroy worn currency).

Federal Reserve Banks place restrictions on the deposit and withdrawal of coin and currency by banks. The restrictions vary somewhat across Federal Reserve offices, but all follow a set of guidelines adopted by the Board of Governors. For example, some Federal Reserve Banks offer access to only one bank office per municipality. In large metropolitan areas this constraint can force a bank to consolidate cash from its branch net- work to its own cash room operation from which all deposits and withdrawals are made. In contrast, a bank operating in a suburban or rural environment can receive service at many of its branches. These constraints, called "access controls," effectively mandate significant private processing for banks in certain geographical areas.

Another key restriction is the prohibition of "cross-shipping" — the "deposit of excess fit currency and re-order of the same denomination within 5 business days." This restriction prevents a branch from depositing its incoming currency without sorting and then obtaining fit currency from the Fed to meet its withdrawal demand. Both access and cross-shipping constraints are explicitly aimed at limiting the volume of Fed currency processing. There is no empirical evidence on the extent to which these constraints reduce such processing volume, but anecdotal evidence suggests that it is quite substantial in some areas.

*The Policy Question*

Currency, coin, and reserve account balances are the three components of the monetary base. The essential policy question concerns the terms on which the components of the monetary base can be exchanged for each other. Under current policy the Fed stands ready to exchange any component of the monetary base for any other component at a fixed relative price of one (par) plus transportation costs. The division of the base among currency, coin, and reserve account balances is thus demand determined, while the total monetary base is determined by monetary policy via open market operations.

As a consequence of the current policy and the fragmented structure of the U.S. depository industry, the Fed acts as an intermediary in the flow of currency. Some bank branches experience net inflows of currency deposits, accumulating currency which they wish to exchange for reserve account balances, either because their vault space is limited or because they want to convert excess reserves to loanable funds. Some bank branches experience net outflows of currency which they need to replace from reserve account balances. The Federal Reserve has a substantial inventory of currency, amounting to 21 percent of outstanding currency at the end of 1991, for example.

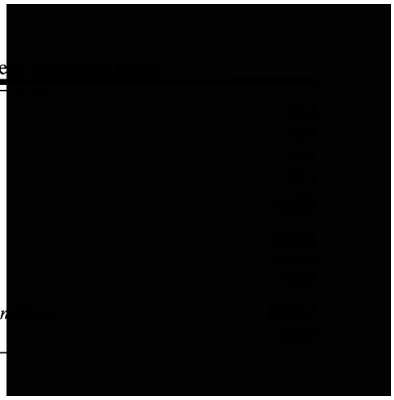
When a Federal Reserve Bank accepts a deposit of currency from a bank, in effect it buys notes in "straps" of 100 notes each. When a Federal Reserve Bank pays out currency to a bank, in effect it sells straps of currency. The objects sold by the Fed — verified straps of fit, genuine notes ("sorted straps") — are different from the objects bought by the Federal Reserve — unverified straps of fit and unfit notes, including some wrong denomination and counterfeit notes ("unsorted straps"). The two are distinctly different economic commodities, just as aluminum is different from bauxite and flour is different from wheat. Real resource costs must be incurred in receiving and storing unsorted straps, in processing currency, in printing new replacement notes, and in paying out currency withdrawals. From this point of view, Federal Reserve currency operations are a productive economic activity, consisting

of the transformation of unsorted straps of mixed-quality currency into sorted straps of fit currency. Table 2 provides a breakdown of Federal Reserve Bank currency-processing costs.

**Table 2 Currency Costs, 1991**
Millions of dollars, except whe

| |
|---|
| Paying and receiving |
| High-speed processing |
| Other processing |
| Overhead |
| Total processing costs |
| Printing new currency |
| Total costs |
| Number of notes received from circulation, *n* |
| Cost per note, *dollars*. |

Sources: See Appendix B.



The "price" of Federal Reserve processing is the difference between what the Fed charges for withdrawals of sorted straps of currency and what it pays for deposits of unsorted straps. Access and cross-shipping controls act as rationing devices to limit the demand for Federal Reserve processing. The policy issue, then, is a classic one. On what terms should a publicly provided service be offered? Should it be provided free of charge with quantitative restrictions to ration demand? Or should it be offered at a price without quantitative restrictions?

Under the current policy of rationed free provision — buying and selling currency at par with quantitative restrictions on deposits and withdrawals — banks' currency-handling decisions are likely to be socially inefficient. For example, a bank with a large branch network could operate a cash room, incurring the associated costs of processing. Alternatively, the bank could have branches deposit and withdraw directly to and from the Fed, avoiding the cost of processing altogether. By buying and selling currency at par, the Fed subsidizes central bank processing relative to private currency processing. Some currency processing now performed by the Fed is socially wasteful. . . .

An attractive alternative to rationing is to provide currency processing at a positive price without quantitative restrictions. One way to do this is to impose a fee for depositing currency. Economic theory tells us that the price of a publicly provided good should be set equal to the marginal social cost of production. This suggests that a currency deposit fee should be set equal to the marginal cost of Federal Reserve currency processing. As a rough guide to the likely magnitude of such a price, Table 2 shows that the average total cost of Federal Reserve currency operations is 2 cents per note. Under constant returns to scale, marginal cost would equal average cost implying a deposit fee of 2 cents per note.

A deposit fee equal to the marginal cost of Fed processing would have the desirable property that banks' decisions about currency handling would no longer be biased towards Fed processing. If operating its own cash room is less costly to a bank than sending currency to the Fed, that is because private processing is socially less costly than Fed processing. Conversely, if Fed processing is less costly to the bank than processing currency itself, it is because Fed processing is socially less costly than

private processing. The cost of acquiring sorted currency from the Fed, relative to the cost of obtaining privately sorted currency, would reflect actual relative resource costs. . . .

A currency deposit fee would allow the elimination of quantitative restrictions on currency deposits and withdrawals, and would let banks decide on the cost-minimizing pattern of use. Banks would determine whether it is less costly for a particular branch to obtain currency directly from the Fed, from other branches, or from central cash rooms. They would determine the cost-minimizing frequency of shipments and whether cross-shipping is the least costly arrangement. The potential overuse of Federal Reserve processing would be curbed, since banks would efficiently ration such processing themselves. In addition, and perhaps more important, the resulting volume of Fed currency processing would be allocated efficiently across banks. The substitution of a deposit fee for quantitative restrictions also would decentralize cost-minimization decisions and let banks assess whether Fed or private processing is more efficient.

*What If There Is a Market Failure for Currency Quality?*

The fact that currency trades at par can lead to a market failure that complicates the attempt to achieve the optimum level of currency quality. Banks choose the quality of currency to supply for withdrawals, but that currency is passed on and deposited at other banks. Because banks are small relative to the currency market, they neglect the effect of their currency outflow on the quality of other banks' currency inflows. Banks ignore the effect of their currency-processing decisions on the quality of currency in circulation, because they are not fully compensated for the social value of the currency quality they supply. At a more fundamental level, the source of the market failure is that the social benefits of quality-dependent note prices are smaller than the costs associated with the inconvenience of such prices. Because prices do not vary with note quality, people do not bear the full social costs and benefits of their decisions.

There are some settings in which suppliers of high-quality currency can obtain direct or indirect compensation for some of the social benefits associated with high quality. Some institutional currency users actually pay to obtain high-quality currency. For example, some banks pay to obtain higher-quality currency for loading into automated teller machines. Many banks, hotels and retail merchants prefer to use high-quality or even new currency in transactions with their customers. Since obtaining high-quality currency often involves some effort or expense, we can presume that the institution believes that its customers prefer high-quality currency, and that providing it to them will result in implicit remuneration such as enhanced goodwill or a higher probability of repeat business. Thus the institution may be partially compensated by its customers for the quality of currency disbursed, making them willing to pay a small premium to arrange for better-quality currency. The demand by these institutions for better-quality currency will reflect a portion of the social benefits of better quality, even though currency trades at par, without adjustment for quality.

For most transactions, however, such mechanisms of implicit compensation are generally lacking or incomplete. Therefore, the demand for fit sorted currency from the Fed, relative to the demand for unsorted currency, is likely to understate society's true demand for fit currency. If so, setting the price

of currency processing equal to the Fed's full marginal cost will lead to suboptimal currency quality. . . .

*An Alternative Pricing Scheme*

I have proposed a simple fee on all currency deposits, but other pricing schemes are also worth considering. One attractive idea is a two-tiered scheme, with a higher fee on deposits of fit currency and a lower fee on deposits of unfit currency. This would provide an enhanced incentive for banks to sort currency themselves and deposit only the unfit, keeping the fit in circulation. If banks' currency-processing decisions are multidimensional, then a two-tiered scheme can bring us closer to the social optimum. A two-tiered, quality-dependent pricing scheme thus could improve upon a simple deposit fee by inducing banks to make more efficient currency-processing choices.

Unfortunately, such a scheme would be quite costly to administer using existing technology. Currently, notes are fed through processing machines in continuous batches made up of many different deposits, and the number of unfit notes is recorded for the entire batch, but not for each bank's deposit. Measuring the fitness of a single deposit requires processing that deposit in isolation as a single batch, at a significantly larger cost. Measuring deposit fitness would be essential to a two-tiered pricing scheme, since banks would have an incentive to misrepresent their deposits as unfit. An additional social cost associated with a two-tiered scheme is that many depository institutions would be induced to acquire the costly devices the Fed uses to measure quality.

If the social benefits of more efficient currency processing outweigh the required administration and enforcement costs, a two-tiered pricing scheme would represent an improvement over a simple deposit fee. A two-tiered scheme probably is not significantly better than a simple deposit fee under current arrangements, however. The next generation of currency-processing equipment, to be deployed in the next five years, will have the capability of measuring individual deposit fitness at little additional cost. A two-tiered scheme could be worthwhile at that time.

*Precedents*

The position advocated here — paying less than par for worn money-may seem radical, but it is far from new. Historically, mints often bought foreign and worn domestic coin at the market price of the metal and then issued overvalued coins, with most of the difference accounted for by "brassage," the cost of minting. When the Bank of England bought worn gold coins for reminting, "there was a small series of charges or profits made for weighing, melting, assaying, the turn of the scale, the difference of the assay reports, etc.," plus a charge for "demurrage," the interest lost while the gold was being coined. Thus the deterioration of coin has been a perennial problem for monetary authorities, and has evoked changing policies as the technology underlying monetary arrangements has changed.

There is a more immediate precedent, however. From 1863 to 1935 in the United States, national banks could issue their own notes, which circulated as currency. These notes were printed by the U.S. Treasury and shipped to the bank for issue. At first, notes could be redeemed at the issuing bank or at a "redemption agent" designated by the issuing bank, generally in New York. This made redemption costly, since by law the notes had to be redeemed at par. As a result, the condition of national bank

notes in circulation deteriorated. In 1874, Congress authorized a "Redemption Agency" within the Treasury that would redeem national bank notes at various locations around the country, destroying worn and mutilated notes and sending back to the issuing bank the fit notes and, if necessary, newly printed replacement notes.

National banks were charged for all of the expenses associated with note issue and redemption. The banks were charged directly for the cost of the plates and dies used to print their notes. They were also assessed a 1 percent tax on outstanding notes (1/2 percent after 1900), out of which the other costs of producing new notes were paid. The costs of redemption were divided pro rata among banks on the basis of the amount of their notes redeemed. In addition, banks paid all of the costs of shipping their own notes.

By all accounts national bank notes functioned as hand-to-hand currency, and since they were collateralized by government securities, they were, in effect, government currency. The resource costs associated with national bank notes, arguably the model for Federal Reserve notes, were borne by private entities. The policy of charging national banks for the costs of note issue and redemption is thus directly analogous to my proposal to charge a fee for currency deposits.

*Concluding Remarks*

A central bank fee for deposits of worn currency is an uncomfortable notion for many, but the proposal merely reflects standard economic reasoning. When the government provides a service for which there are privately provided substitutes, economic theory tells us that it should not, in general, be provided free. The current system of fees for wire transfers of reserve balances reflects just such reasoning and was designed to improve economic efficiency by providing the proper incentives to private decision makers. The goal of a currency-processing fee is identical — to improve the efficiency of currency handling by providing private decision makers with the proper incentives.

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## Avery W. Katz, *An Economic Analysis of the Guaranty Contract* , 66 U. CHI. L. REV. 47 (1999).

Guaranties and suretyships take many forms, but the essence of the relationship is a contract among three parties: a creditor (C) who is owed a duty, a debtor (D) who owes the duty, and a guarantor or surety (G) who promises to perform or pay damages on D's behalf. Depending on the context and the applicable body of law, however, these three parties are designated by different labels. . . In the terminology of the Third Restatement, for example, C is the "obligee," D the "primary obligor," and G the "secondary obligor." As this terminology suggests, ordinarily D is expected to bear the burden of performance, and if G is called upon to perform or pay in D's stead, it is ordinarily expected that D will reimburse her if he is able. . . This simple model of the relationship between C, D, and G is general enough to encompass a wide variety of business and policy contexts, as the following examples illustrate.

*Intrafamilial guarantees.* — D, a college senior who is about to graduate and take his first job, wants to buy a car. He has enough money for the down payment, but has not yet established a credit history. His only borrowing experience consists of student loans, which will not become due for six months and which he has not yet begun to repay. Accordingly, only finance companies that specialize in lending to risky debtors will be willing to deal with D on his own, and those companies' interest rates are substantially higher than the market average (and the rates available to someone with a longer credit history). If D can find someone with an established credit record to guarantee his loan, however, he will be eligible for more conventional and cheaper financing from C, a local bank. D arranges with his mother, G, to provide such a guaranty by co-signing his loan application and by co-signing the promissory note that D must execute in C's favor before receiving funds.

*Intercorporate guaranties.* — D, a limited liability corporation, needs financing to modernize its capital equipment. C, one of D's longstanding suppliers, is willing to lend D the necessary funds, but is concerned about D's leveraged capital structure and relative lack of marketable assets. Accordingly, as a condition of the loan, C requests and obtains guaranties from D's parent company, $G_1$, and from $G_1$'s sole shareholder, $G_2$. In the event that D defaults, these guaranties allow C to access assets that ordinarily could not be reached without piercing the corporate veil, thus reducing C's risk and lowering the interest rate it will charge. . .

*Joint and several liability.* — A single transaction may involve multiple guarantors and multiple debtors, with some parties acting as debtors for some obligations and as guarantors for others. To illustrate, suppose two law students, A and B, decide to lease an apartment together. The lease contract makes each tenant jointly and severally liable for the entire monthly rent of $ 1,000. The students agree between themselves, however, that A will take the larger bedroom and pay $ 600 per month while B will take the smaller bedroom and pay $ 400 per month. These two agreements — the lease contract and the side agreement between A and B — together render A and B both debtors and guarantors with respect to their landlord. As to the $ 600 rent on the larger bedroom, A is debtor and B is guarantor;

as to the $ 400 rent on the smaller bedroom, B is debtor and A is guarantor. This is so whether or not the landlord knows of the students' side agreement; indeed, one advantage of such an arrangement is that the landlord does not need to keep track of how its tenants apportion the lease obligations among themselves. . .

*The Law Governing Guaranties*

Because a guaranty relationship can be achieved through a variety of contractual devices, the precise body of law that governs the relationship will depend on the particular device used. Generally, the parties' relationship will be governed by the common law of contracts and suretyship. . . If a guarantor (G) acquires her status by making or indorsing a negotiable instrument, however, the parties' relationship will be governed first by Article 3 of the Uniform Commercial Code ("UCC"), which provides special rules for "accommodation parties," and next by any common law rules that the UCC does not specifically displace. If the guaranty takes the form of a standby letter of credit, which is routine when the guarantor is a commercial bank, the relationship is governed in part by Article 5 of the UCC, in part by the common law, and — if the transaction has an international element — in part by the International Chamber of Commerce's Uniform Customs and Practice for Documentary Credits. If the guarantor provides collateral to secure the underlying secondary obligation, or if the guaranty arises out of a sale or assignment of accounts, then UCC Article 9 governs the transaction. Finally, . . . if the U.S. government or U.S.-sponsored institutions guarantee a loan, then federal statutes — and, ultimately, implicit political contracts among Congress, the executive branch, international actors, and American voters — provide the basis for liability.

Whatever body of law, commercial practice, or political understanding creates the guaranty, the functional issues are much the same. Guaranties are a response to potential moral hazard and adverse selection problems: they help protect creditors against some of the risks of debtor misbehavior or insolvency by shifting those risks to guarantors. In so doing, guaranties enlist the guarantor's efforts in reducing or managing those risks. As with any other insurance arrangement, however, guaranties themselves are subject to various types of moral hazard and adverse selection. Each party to the transaction can impose losses on the others by failing to take precautions or by withholding information. For example, guarantors have the power to hurt creditors (and debtors as well) by incautiously offering guaranties where the underlying financial situation does not warrant a loan, or by failing to monitor the debtor after money has been lent. Creditors may hurt guarantors (and debtors) by provoking debtors to default, by failing to collect from the debtor when possible, and by impairing the guarantor's ability to seek recourse from the debtor after the fact. Debtors can injure guarantors and creditors alike by taking excessive risks and making inadequate efforts to meet their primary obligations. Moreover, the very creation of a suretyship can itself raise incentive problems, particularly when one of the parties to the underlying primary contract had not anticipated that a three-corner relationship would arise.

Because of these common functional problems, all bodies of formal guaranty law provide the three archetypical parties with various rights and duties that, on the whole, are designed to discourage opportunism and encourage all persons involved to take reasonable precautions against economic loss.

All regimes of guaranty law provide a default rule giving G a right of recourse against D in the event D does not perform his primary obligation and G has to make good on her guaranty.

The common law of suretyship, for example, protects this right of recourse in three ways. First, G is entitled to the right of reimbursement for any funds she actually pays out, plus reasonable expenses. Second, and alternatively, if G satisfies D's obligation to C in full, she is equitably subrogated to C's rights against D. This subrogation right is valuable if C has some special status (such as that of holder in due course) that gives her immunity against claims and defenses that D could otherwise raise (and specifically, that D could raise against G). It is also useful if C has priority over D's other creditors through a lien or other interest in specific property. Finally, G has a right to D's performance itself — that is, the right of exoneration. This last right is valuable because G can assert it before her duty to pay anything out has arisen, and such early action may increase the chances that D will still perform. Depending on the circumstances, the right of exoneration may entitle G to receive specific performance from D, pursue an action against D for creating insecurity along the lines of the right of adequate assurances under Section 2-609 of the UCC, or declare the contract in default.

Conversely, guaranty law provides a number of rules designed to protect guarantors against creditor action that materially increases guarantor risk. Thus, if the debtor's breach was occasioned by a countervailing breach by C — as when a credit buyer of goods withholds payment after discovering that the goods are unmerchantable — the traditional common law rule permits G to treat C's breach as a defense to her secondary liability to the same extent it would provide a defense to D's primary liability. Similarly, she may be able to assert D's unrelated claims against C by way of set-off.

Beyond such derivative claims, G is also entitled to raise certain rights and defenses against C that D could not raise — the so-called "suretyship defenses." For instance, if C modifies D's underlying obligation, extends D's time for performance, unreasonably refuses a tender of performance by either D or G, or fails to supervise or preserve rights against collateral or against co-sureties or sub-sureties, G may avoid liability to the extent she suffers resulting loss. Indeed, if C fails to disclose events that would support a good suretyship defense under conditions where it should know that G is ignorant of such events, G has a right to recover any amounts she has unnecessarily paid out.

The specific content of these various rights and duties, however, depends both upon the particular factual setting and the governing body of law. The substance of suretyship defenses and the duties of care owed by the creditor, for instance, are different under the common law of suretyship, Articles 3 and 9 of the UCC, and the law of letters of credit. The remedies that follow from a breach of C's duty to G are also different, as are the procedures for contracting around the default rules within various legal regimes. As a result, the content of guaranty obligations depends primarily on the parties' choice of transactional form. A person guaranteeing a promise embodied in a promissory note can opt into the rules of Article 3 by signing the note as an accommodation party or into the rules of the common law of suretyship by signing a separate written agreement. She can opt into Article 5 by casting her guaranty in the form of a letter of credit or opt into Article 9 by offering specific property as collateral. Even within these broader transactional forms, furthermore, she can vary her rights and duties by using particular terms of art. . . By issuing a limited rather than an unlimited guaranty, she can mimic various

risk-sharing devices common in insurance markets, including liability caps, deductibles, and co-payments. And apart from a few exceptions, she can contract around the default rules of suretyship whatever the applicable legal regime. Indeed, such waivers of default are the norm in many lending markets.

To decide whether to cast one's financial transactions in the form of a guaranty at all, to choose which regime of guaranty law to opt into, and to decide whether to accept the various default rules of that regime, accordingly, it is necessary to understand the economic purposes that guaranty contracts serve. . .

*Guaranties, Unguaranteed Lending, and Intermediation*

Consider a situation where a would-be debtor, D, seeks funds from two potential creditors, C and G. There are several ways to provide funds to D. . . First, D could borrow from C alone, leaving G out of the transaction entirely. . . Second, D could borrow from C and supplement it with a guaranty from G. . . [so that] if D does not repay the primary loan, then G will become indebted to C and D will become indebted to G. Third, G could borrow from C and then on-lend to D. . . In this case both obligations are unconditional. C would then have no direct claim against D, though G's claim against D would be one of the assets to which C could ultimately look for satisfaction if G falls into default with C. For each of these three possibilities there exists an alternative and symmetric arrangement with G and C switching places. For instance, D could borrow the entire amount from G rather than from C, and so on. Additionally, the parties could provide part of the desired funds through one form and the rest through another, as when C and G separately and independently lend D half of what he requests. . .

*The cost of credit in an unguaranteed loan.* — The precise costs of credit will vary depending on the form of the transaction. In the simple case where C lends directly to D, there are three main components of credit cost. The first is the marginal cost that C bears in obtaining liquid funds to lend, a cost that can be further divided into two subcomponents. The first of these subcomponents is the pure time value of money — the explicit or implicit interest rate, $i_C$, that C must pay for obtaining such funds, whether by drawing down its own savings, reducing loans to other borrowers, or engaging in financial intermediation with other potential lenders. The second subcomponent is C's marginal cost of liquidity, $l_C$ . . . [that is, ] the transaction costs that C must incur to convert its assets into a readily acceptable medium of exchange. If, for example, all of C's assets happen to be tied up in a parcel of real estate, its liquidity costs would consist of all the expenditures and opportunity costs associated with mortgaging or selling the parcel, including commissions, appraisals, surveys, title insurance, transfer taxes, attorneys' fees, and the like. The extent of such costs will of course depend on the particular form in which C's assets are held. . .

The second main component of C's credit cost is the transaction cost of dealing with D. These transaction costs include the ordinary incidents of processing a loan: underwriting; time spent by loan officers, clerks, and other administrators; drafting and executing a loan contract; and servicing the loan after it is made. They also include the costs of investigating D's creditworthiness and auditing his behavior over the life of the loan. Such monitoring costs will depend on the amount being lent, but, more importantly, will also turn on the precise nature of C's relationship with D. If C has never dealt

with D before, it will need to spend time acquainting itself with D's business affairs and credit history, the merits of any projects D plans to pursue with the borrowed funds, other competing demands on D's resources, and similar matters, before making any loan. These costs will be lower if C has dealt with other persons in D's position in the past, and lower still if C has dealt with D personally. Conversely, if C plans to deal with D again in the future, these costs can be amortized over multiple occasions, while if this is an isolated transaction, such costs will have to be recovered all at once. Similar considerations apply to the costs of supervising the loan after it has been made, keeping track of D's other assets as well as any subsequent borrowing he may undertake, and maintaining the value of any necessary collateral. I will denote the marginal cost of such monitoring by the symbol $m_{CD}$, where the subscript *CD* emphasizes the relational aspects of these monitoring costs.

Third, even with optimal monitoring, some risk of debtor insolvency and default will still remain. The resultant loss to be expected depends on the probability of such a default, the amount of funds that can be recovered afterwards, and the cost of collection. All three of these quantities will depend on the amount of investigation and auditing that C has done, C's and D's individual characteristics, and external factors out of both parties' control. Furthermore, because C must accept this risk of insolvency and default if it is to lend at all, C's subjective assessments of risk, based on past experience with D and other debtors who appear in C's eyes to be similar, is also relevant. . .

*The cost of credit in a guaranty transaction.* — The addition of a guarantor to the transaction unambiguously reduces C's costs, for several reasons. First, because C can anticipate that G will rationally wish to engage in some monitoring of D and will also wish to help ensure that D performs, C can reduce its own monitoring efforts to a corresponding extent. Second, even if G engages in no monitoring, her willingness to underwrite D's debt credibly signals her subjective belief that D is relatively likely to perform. To the extent that C has reason to think G's risk assessments are accurate, this signal lowers its own expected costs of monitoring and default. (Consider a mother with two sons, one industrious and one irresponsible. Because the mother knows that the former son is less likely to default than the latter, the expected cost to her of giving him a guaranty is lower. Other things being equal, accordingly, she is more likely to guarantee the former's debt than the latter's.)

Third, to the extent that D values his relationship with G, cares about G's welfare, or anticipates that G will be better able to collect than will C alone, D has incentives to take greater precautions against default. And, fourth and most obviously, should D become insolvent, C will have a backup source of funds to pursue. Except in the extreme case where D's and G's assets are essentially the same (as with a parent and subsidiary corporation that operate de facto as a single entity), the chance that both D and G will become insolvent simultaneously is an order of magnitude less than the chance that either one will become insolvent alone.

As a result, C would plainly prefer adding G to the transaction if there were no costs associated with doing so. But of course there is a cost — the risks and obligations that will be imposed on G in her role as guarantor. To the extent that C is relieved from the responsibility for monitoring, G is burdened with it. To the extent that C can recover from G following D's default, G (and G's other creditors) are at risk. Thus, many, though not all, of the costs saved by C on a guaranteed loan are simply shifted to G. . .

Without resorting to a great deal of tedious algebra, it should be apparent that a loan made by C and guaranteed by G is cheaper than a simple unguaranteed loan from C if, and only if, the expected savings achieved by shifting some or all monitoring, enforcement, and default risk costs from C to G outweigh the increased transaction costs that arise from having to maintain three relationships among the parties instead of just one. In short, guaranties are profitable when the guarantor holds a sufficiently great comparative advantage in investigating, supervising, or collecting from the debtor in the event of default — in other words, when the guarantor is the least-cost monitor. The creditor and debtor engage the guarantor to do this monitoring and enforcement, either explicitly or implicitly, and the guarantor either keeps the proceeds as her compensation or allows the debtor to keep them as a gift.

This explanation of guaranties fits well with the stereotypical examples presented [above]. Consider first the case of intrafamilial guaranties. Parents generally know their children better than third-party lenders do. They are ordinarily familiar with their children's past financial behavior and in most cases have relatively more accurate information about their children's day-to-day doings. The emotional aspects of ordinary family life also help to reduce parents' costs of monitoring and collection. Because of the awkwardness and guilt most adults feel when in debt to their parents, and because of the utility they attach to their parents' welfare, children will work harder to avoid defaulting when parents are potentially liable for filial debts. In the event of default, furthermore, the parents are also better placed than an outside creditor would be to collect from their children, not only because they have better information about hidden assets, but because the perceived moral obligation to repay a family member for a bad loan is likely to survive bankruptcy where a commercial obligation does not, and because ultimately parents have the option of collecting by reducing future gifts and bequests. Similarly, controlling shareholders hold a comparative advantage in investigating, supervising, and collecting from the corporations they oversee. As residual claimants, they enjoy the marginal benefits and suffer the marginal costs of corporate actions, hold the balance of power for certain critical decisions, and may even be entitled to dissolve the company entirely. All these considerations make them good candidates to guarantee corporate debts. . .

*Why does G guarantee rather than simply lend?* — The foregoing account of guaranties is straightforward and intuitive, but it is not the complete story. If guarantors have a comparative advantage with investigation, supervision, and collection, why don't they just make loans themselves, thus saving the extra transaction costs of a three-corner relationship? . . .

Recall that G's credit costs as a direct lender also include her implicit interest rate $i_G$ and her liquidity cost $l_G$. As a guarantor, however, G avoids paying for implicit interest during the period the loan is outstanding, and she only need pay for liquidity in the event of a default. Interest and liquidity costs do not disappear if G acts as guarantor, of course; they are simply transferred to the primary creditor C. But if C's cost of liquid funds is sufficiently lower than G's, it can more than make up for the extra information and transaction costs incurred by a three-corner arrangement.

The point is easily demonstrated with a numerical example. Consider the situation of a debtor D who applies for a $ 10,000 loan from a potential creditor C, to be repaid after one year. Suppose for purposes of the example that the risk-free interest rate is 4 percent, reflecting the going rate of return

on one-year Treasury bills, and that C has ready access to liquid assets at no additional cost beyond this risk-free rate. Suppose also that if C lends to D, it will incur monitoring costs equal to 1 percent of the face value of the loan, and that even after such monitoring, there will remain a 15 percent chance of default. In this case, C will insist on charging a risk-adjusted interest rate of 20 percent (= 4 percent + 1 percent + 15 percent) if it makes the loan. . .

Alternatively, suppose that if D borrows from G instead of from C, G's superior ability to monitor and collect from D will cut the expected cost of default to 10 percent. Adding this default risk to the risk-free interest rate of 4 percent and monitoring costs of 1 percent makes G's cost of liquid credit 15 percent. But G holds her assets in a relatively illiquid form, and thus bears a further 10 percent cost in making them available for use by D. This raises G's required interest rate to 25 percent, making her a less desirable lender, both from D's private viewpoint and from the social viewpoint of economic efficiency.

If C makes the loan and G guarantees it, however, C's access to liquid funds will keep the direct cost of the loan down to 4 percent, and G's superior monitoring ability will keep the cost of de fault down to 10 percent. Of course, G will have to provide liquid funds in the event of a default, but that event can be discounted by its low probability. Thus while G's liquidity costs under a direct loan are 10 percent, her expected liquidity costs under a guaranty are equal to 10 percent of 10 percent, or 1 percent. Summing up, interest costs of 4 percent plus monitoring costs of 1 percent plus default costs of 10 percent plus liquidity costs of 1 percent equals 16 percent. Of course, there are additional costs of structuring the transaction as a guaranty, including the costs of duplicative monitoring by C and G. If we denote these additional transaction costs as *t*, then the total cost of credit under a guaranty becomes 16 percent + *t*. If *t* is low enough — specifically, if *t* is less than 4 percent — then a guaranty will be cheaper and more efficient than a direct loan from either C or G. A guaranty, in short, is a credit transaction in which one party — the guarantor — specializes in information and monitoring, and another — the creditor — specializes in obtaining loanable funds. . .

[For example, a] parent may be highly confident in her child's ability to repay a loan and have quite effective means at her disposal to ensure that he actually does repay. As a result, she is willing to guarantee the loan while receiving relatively little in exchange; indeed, the expected cost to her may be low enough to justify making her guaranty a gift. But because the family assets are tied up in the house and in the parents' retirement savings accounts, making the same loan out of pocket would be quite expensive. If the child should default, of course, the IRAs would have to be cashed in and the house mortgaged; but the chance of this happening is low — low enough to be outweighed by the benefits conferred on the child.

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## Ian Dew-Becker, *Check 21: The Details*, Federal Reserve Bank of Chicago, July 2004

The Check Clearing for the 21st Century Act (Check 21) was signed into law by President Bush on October 28, 2003, and takes effect on October 28, 2004. It was designed to facilitate the use of check images within and between banks, and requires a bank to accept a "substitute check" in place of a check and to educate its customers on how it will use substitute checks.

Currently, absent an agreement otherwise, banks are required to present the original paper check to the paying bank for payment. Banks can only exchange electronic check images if there are agreements between the banks to do so.1 As a result, banks may process and present some checks electronically but must process and present other checks in paper form. Already, many larger banks have imaging technology in place, some having installed it as early as ten years ago.2 Likewise, many banks save money by no longer sending customers their original checks. They also provide new services by allowing customers to see images of their checks online.

The major change effected by Check 21 is that it gives legal recognition to substitute checks. Electronic check images have no legal recognition beyond the warranty that Federal Reserve regulations require a sending bank to provide.3 Many industry experts agree that the main incentive provided by the Act is to move to a system of image exchange.4

*Substitute Checks*

Substitute checks must meet both basic legal requirements and minimum industry standards set by the American National Standards Institute (ANSI).5 According to the Act, a substitute check must contain an image of both sides of the original check, be MICR encoded with all the relevant information from the original, be machine readable, and contain the legend, "This is a legal copy of your check. You may use it in the same way as you would use the original check."6 Since the substitute check will be of a standard size and have MICR encoding, it will be completely machine readable. Furthermore, the proposed Federal Reserve regulations make no specific requirements about the size and shape of a substitute check, only that it meets industry standards, which are those set by the ANSI.7 The bank that creates the substitute check is called the reconverting bank and the substitute check must identify it as such. In addition, no matter when a check is converted to an image or substitute check, all indorsements that were on it at the time must remain.8

The Federal Reserve has set minimum image quality standards as a black-and-white image conforming to ANSI X9.100-140.9 The other option for minimum standards would have involved gray-scale, i.e., using different shades of gray to reproduce the image of the original check. If it had chosen gray scale, a number of large banks would have found that their systems were already obsolete, and the equipment necessary for producing substitute checks would have been more expensive. However, banks may still find that more advanced imaging systems are to their advantage. Because of new legal standards set on liability, a company investing money to implement a more advanced imaging system may find that it can reduce the risk of fraud and lost checks. But nobody knows exactly

how great those risks will be or whether the cost of more advanced imaging systems will be worth the resulting reduction in risk.

*Expedited Recredit*

Check 21 also initiates an expedited recredit system.10 Under this system, if a customer disputes a charge in good faith within 40 days of receiving his or her statement and has suffered a loss, then his or her bank has ten days to investigate the claim. If the bank cannot complete its investigation of the claim within that time, it must recredit the customer up to $2,500 plus interest on the next day, and the remainder on the 45th calendar day.11 If, on the other hand, the claim is found to be correct, then the bank must issue a full recredit plus interest by the next business day. A bank can prove that it made the charge correctly and avoid any recredit with either the original check or a better copy of the substitute check that meets all legal standards (a "sufficient copy"). The timing requirements contain exceptions for accounts that have been open less than 30 days or have recently been overdrawn, and for where there is good reason to believe the claim could be fraudulent. Also, if a customer has acted in bad faith then their indemnity is to be reduced in an amount proportional to the bad faith.12

Banks can also make expedited recredit claims against other banks. This will happen most often if one of a bank's (bank A) customers makes a recredit claim against them and it is caused by a substitute check from another bank (bank B). In this case bank A has 120 days from the date of the original transaction to file a claim. The claimant must send the indemnifying bank an explanation of the claim and why the substitute check cannot be charged to its customer's account. As with consumers, bank B must respond to the claim of bank A within 10 business days with either a recredit or a sufficient copy of the substitute check.

Recredit for electronic funds transfers is covered by Regulation E. Unlike Check 21, under Regulation E, consumers have some limited liability for unauthorized electronic transfers. If a customer fails to report the loss of an access device such as an ATM card within two days, their liability is up to $500. If they do report it within two days their liability is limited to $50. If a customer notices unauthorized transfers on a periodic statement, they must notify the bank within 60 days, or else take full responsibility for any losses after the 60 day period ends.13

*Producing Substitute Checks*

The absolute minimum requirements that banks must satisfy to be in compliance with the new law are straightforward and fairly limited. They must accept substitute checks, and they must educate both bank staff and customers on the implications of a substitute check. The staff must be shown how to recognize and process a substitute check, and how to address customer concerns with Check 21. Customers must be told what a substitute check is, that they may receive some or all of their returned checks as substitute checks, what their expedited recredit rights are, and what their bank's procedures are regarding these areas.14

Clearly, some banks will do far more than the minimum of accepting substitute checks. Many will produce substitute checks, especially those banks that already have imaging technology in place, or they may have other companies produce substitute checks for them. It is expected that smaller banks will be more likely to outsource substitute check production since they do not have large enough operations for an investment in imaging to produce a positive return.

When a bank produces a substitute check or has an outside company produce a substitute check for it, it takes on a host of new responsibilities, including a warranty on the document and a guarantee of indemnity.15 The bank must guarantee that the IRD meets all legal requirements, that payment on that check is not requested more than once, and must indemnify any bank that uses its substitute check for any losses caused as a result of using the substitute check. This warranty runs with the check for the entire clearing process. If there is a breach of the warranty, the reconverting bank must compensate the injured party or parties for all losses and any reasonable expenses such as legal fees.16 For example, if a person's insurance were cancelled because a bad substitute check caused it to not be paid, the bank would not only be liable for making sure that the company gets paid, but would also have to cover all legal expenses and any losses to the consumer associated with the cancelled insurance policy. Conceivably, this could include paying for a house that burned down. As of yet, nobody is sure of the practical extent of this liability, and the courts will likely make the final decision.

The liability does have limits though. If a person suffered a loss as a result of a bank using a substitute check, but there was no breach of warranty, then the indemnity is limited to the value of the check plus interest.

*Truncation and the Transition to Imaging*

One of the most important expected changes as a result of Check 21 is an increase in check truncation. Truncation is stopping the use of the original check and using the information from the check to move towards presentment in some other format.18 Currently, the most common form of truncation in the United States is ARC (accounts receivable conversion), which involves using the MICR encoded data at the bottom of a check for an ACH (automated clearing house) transaction.

Since Check 21 allows banks to use only the image of a check, and there is no legal requirement for holding an original check, some industry experts expect that consumers will begin to find that their checks are truncated and returned even at the point of sale. They also believe that truncation will occur more often at lockboxes so that checks can be moved electronically rather than having to be shipped across country.19 The increase in truncation is expected to lower the per-check cost to banks. Ideally, these cost savings will be passed on to consumers, although banks are under no obligation to do so.

While truncation is expected to lower per-check costs, the well-known decline in US check volume is resulting in an increase in banks' per-check costs.20 Many people are moving toward electronic transactions such as credit and debit cards, and many banks now offer online bill payment. This decline in check volume gives banks added incentive to switch to an entirely electronic system to reduce the costs associated with handling large numbers of original checks. Most experts seem to agree that total savings from an electronic system will reach about $2 billion annually.21 Much of the savings will

come from transportation and storage costs. Savings will also come in the easier handling of checks. Checks can go through fewer sorters, and a bank can move a check to any of its processing departments nearly instantaneously. A study by Alogent and BearingPoint found that a large bank could realize net savings of $45 million over a 17 month period even using just intra-bank imaging.22

However, the cost of transitioning to a system with both intra- and inter-bank imaging could reach $10 billion.23 These costs break down into a number of categories and are only discussed at a high level here. First will be the one-time infrastructure costs to buy imaging equipment. Other optional infrastructure costs will include equipment like image-enabled ATMs. Currently, these ATMs cost about 25% more than non image-enabled models, but as production increases their cost can be expected to come down. 24

The second area of costs is training. At a minimum, employees will need to be trained on how to read and use substitute checks and how to deal with the expedited recredit provision. Banks that have more extensive imaging programs will need to train employees to create substitute checks and perform other functions that become image based, such as returns and adjustments. Check 21 will involve two key variable costs: paper and ink from producing substitute checks, and the bandwidth necessary to transmit large numbers of images.25 Because of the size of fixed costs relative to variable costs, some executives are predicting that there will be a net loss from imaging for the first three years of implementation, and a net gain after that.26

One of the biggest questions in how imaging will be implemented and what cost savings it will bring has to do with Day Two processing (returned checks, adjustments, and mistakes in coding on the bottom of checks). A number of banks are able to process checks with images already, but when adjustments are necessary, they often have to switch to paper-based systems. Detroit-based Comerica Inc. began investing in imaging about ten years ago, but it still has yet to switch Day Two operations to an electronic system.27

However, the benefits from this transition are expected to be great. Viewpointe, an imaging outsourcing firm, estimates that banks that do no imaging will see their per-check processing costs rise to as high as between seven and eleven cents, from a current range of six to eight cents. However, Viewpointe claims that full image processing for both Day One and Day Two would reduce costs to below four cents, with total savings reaching up to $17 to $24 million dollars if a bank shares images both within a consortium such as Viewpointe and also outside of the network.28

Although Check 21 does not expressly sanction image exchange (IMEX), it is an obvious outgrowth, and is mentioned in the warranty requirements of the new Federal Reserve regulations. Many executives see IMEX as a necessity given that there does not seem to be much financial incentive in moving to a system of substitute checks without IMEX.29 Banks are expected to make agreements with each other to transfer check images. Large banks are expected to make this transition first because there are economies of scale both in equipment costs and in setting up and managing agreements on IMEX, and some are already members of consortiums.30 A market for outsourcing imaging and exchange for smaller banks already exists, so they, too, will have the opportunity to participate in

IMEX. Large banks will be making agreements with each other and with companies that represent large numbers of small local and regional banks to set up IMEX.

These inter-bank agreements will likely apply not only to IMEX, but also to the warranty and liability provisions for substitute checks. Many bankers are worried about the liability from substitute checks. They will be able to reduce this uncertainty by making agreements with each other to define the minimum requirements of a substitute check and to limit their liability for damages as a result of a bad substitute check upstream.

*New Risks and How They Are Mitigated*

Banks that use IMEX take on a certain amount of risk. All of the warranties and indemnities that apply to a substitute check are also taken on by any bank that transfers an image with the expectation that it will be turned into a substitute check later on. Also, if a bank has a third party, such as an outside vendor, either produce a substitute check or transfer an image of a check, then it is the bank that takes on all liability, not the vendor.31 Although this could have a chilling effect on banks' transition to imaging, it also means that outsourcing firms will likely take on less risk and, therefore, should be more eager to enter the market.

Check 21 introduces new operational risks beyond simple mistakes in imaging. The nature of fraud will be drastically changed. It is expected that IMEX will reduce the time between check cashing and presentment from four days to one. In that respect, banks' exposure to fraud should be reduced.32 Banks that use image-enabled ATMs will also reduce empty envelope fraud since they will be able to scan checks on deposit to confirm their value. The biggest increase in fraud is expected to come from the fact that no substitute check will ever be identical to the original check, and for that reason "there are no known completely image-survivable security features that are fully effective."33 This is especially important considering that the minimum standards implemented by the Federal Reserve include only a black-and-white image, not gray scale. Many of the security features that banks have relied on in the past, such as fading colors will be even less visible with black-and-white images than they would with gray scale.

Disagreement exists over exactly how the loss of certain fraud prevention devices will affect banks. Some argue that banks never manually certified all of their checks anyway, especially since tellers were not highly trained in detecting fraud.34 This would mean that large banks, which can better afford automated check readers, would be better able to catch forgeries. On the other hand, it is unclear exactly how successful the automated prevention systems would actually be.

One automated payment system is positive pay. This involves having companies send information on all the checks they write to their bank so that it knows which checks are authorized. Another method, called a "Self Authenticated Negotiable Document" or SAND, involves placing a tamper-proof, encrypted barcode on each check, which would contain payment information and identify each check written on an account. This would eliminate the burden of having to send check issue files to the bank routinely.35 But since both of these methods are only used for the large scale payment operations of companies, neither of them directly protects the typical retail consumer.

A couple of new innovative security features on substitute checks to protect consumers are being discussed. Because of the warranties and indemnities that banks take on when they truncate checks and produce substitute checks, the banks have a large incentive to keep substitute checks from being forged. One new way that they are stopping forgery is with special substitute check MICR bond stock. Reylco produces paper suitable for substitute checks that includes ultraviolet security marks, and ink that disappears when handled by a person36. Security features of this sort could easily be spotted by tellers, as they are already trained to check ultraviolet marks on many large bills.

Although bankers are working to make checks fraud-proof through the imaging process, they are worried about criminals shifting away from forgeries to completely different types of fraud.37 Bankers are most worried about faceless transactions and account takeovers. These do not require forged checks or dealing with any bank personnel, but rather identity theft. In the end, it becomes clear that what Check 21 may in fact do is to shift the risk of fraud away from large corporations and towards consumers. This is especially worrisome since law enforcement professionals are upset that they will no longer have a physical document to inspect in cases of check fraud. Fingerprinting will be impossible, and handwriting analysis will be made much more difficult.

*Long-Term Effects*

The long term effects of Check 21 can be somewhat predicted based on the experience of other countries. The U.S. is the last G-10 country to switch to check truncation, so we can look to other countries' experiences. In France, as in the US, checks were a widely-used, but declining payment mechanism. Prior to 2002, the Bank of France operated its own check processing facilities and shared the market with the private sector. Unlike under Check 21, banks in France moved to a fully truncated check clearing system. All check transactions are now truncated and cleared through the French Interbank Teleclearing System (SIT), where all cashless retail payment media are settled.39 The Bank of France no longer operates a check clearing facility, but maintains oversight in check clearing principles and standards.40 The U.S. can most likely look to a continuing decline in check use, and where checks are used, truncation will rise.

## Tara Rice, *Check 21: What Does It Mean To Banks and Consumers?* Federal Reserve Bank of Chicago, January 2004

The "Check Clearing for the 21st Century Act" (Check 21) removes legal barriers to check truncation by permitting banks to truncate original checks, to process the check information electronically, and to print and deliver "substitute checks" (also called image replacement documents) to banks and bank customers that want to continue to receive paper checks. Its objective is to improve the overall efficiency of the nation's payments system. What are the implications of Check 21 for banks and consumers? This article briefly reviews the contents of Check 21, discusses its potential effect on the banking industry and examines potential costs and benefits of this Act to banks and consumers.

*What It Does*

On December 21, 2001, the Federal Reserve Board unveiled draft legislation on Check 21. It was introduced into the House on March 27, 2003, and discussed in the Senate Banking Committee April 3, 2003. It was signed by President Bush on October 28, 2003. Check 21 will take effect in October 2004.

Check 21 authorizes use of a new negotiable instrument, called either a substitute check or an image replacement document (IRD), as the legal equivalent of an original check. This newly created substitute check accurately represents all the information on the front and back of the original check when it was truncated. This substitute check must be magnetic ink character recognition (MICR) encoded, machine readable, and include an image of the front and back of the original check. The IRD also must meet industry standards and bear a legend that states "This is a legal copy of your check. You can use it the same way you would use the original check". And, indeed, an IRD can be used as a check, but one that is simply transported electronically, in place of the paper check.

Check 21 does NOT provide legal coverage for image exchange, define industry standards for the IRD, nor determine what constitutes legal presentment. It also does not regulate the transmission and exchange of electronic check images. It only addresses the legality of the paper reproductions or IRDs.

*How It Works*

[This section draws from a presentation by Terrance Roth, Federal Reserve Bank of Cleveland.]

Before Check 21 was enacted, a collecting bank could choose to clear items via the physical check under direct exchange or clearing house exchange or through an intermediary. Check 21 allows the bank to:

(1) create the substitute checks locally or

(2) create the substitute checks offsite, (this is also know as "harvesting" the check images). Offsite images can be created through centralized point-of-deposit (POD) operations, branch capture, ATM capture or capture at a commercial depositor's site. This will enable banks to expand their use of

electronic methods in collecting and returning checks, reducing the industry's reliance on costly transportation options to collect/return checks across the nation.

Currently, many banks use "Accounts receivable conversion" (ARC). ARC allows banks to convert checks to automated clearing house (ACH) transactions at the lockbox. More specifically, this technology uses MICR information from checks to create ACH transactions. The original checks are then typically destroyed. This, too, is a form of check truncation, but is largely used by merchants and billers. Check 21, on the other hand, was enacted to promote use of digital images initially by banks, with the intention that this technology would spill over to merchants and billers. The ARC technology uses check imaging equipment, and many merchants are already scanning checks, which may make conversion go more smoothly for some that use this technology. The main difference between ARCs and IRDs is that IRDs are processed as checks, while ARCs are processed as ACH. Under Check 21, the bank will send check images electronically through electronic check-processing technologies to those banks that own this new technology and wish to receive electronic checks. The banks will send IRDs to those banks which do not have the technology yet and/or do not wish to receive the electronic images. It's important to make the distinction between IRDs and electronic check images. A bank can scan a check, create an electronic image, and transmit that image electronically. But this check image is not the same as an IRD – it is not the legal equivalent to the original check, as Check 21 mandates the IRD to be. Therefore, the bank will need to create an IRD, or have a third-party vendor or the Federal Reserve create that IRD from the original electronic image.

Finally, the Act also creates a warranty structure to protect against the risk of increased losses associated with the use of substitute checks. Under existing check law, a bank may only charge a properly payable check to a customer's account and banks must resolve claims timely in order to limit liability. But Check 21 mandates expedited recredit for resolving disputes arising from the use of IRDs, such as a customer questioning a check's authenticity. If a customer questions the authenticity of an IRD, the bank has one day to either produce the original check or credit the account for the amount of the substitute check. The bank may reverse the recredit if it determines that the substitute check was properly payable and notifies the consumer (S. Marlin, "Fed Check Proposal Has Banks Worried," www.banktech.com, 1/1/02).

*Expected Benefits from Check 21*

*To Banks*

The Federal Reserve Board cites three potential benefits of Check 21 to banks:

(1) More choices for banks. The IRD will be an alternative to the current methods of payments processing. Check 21 does not eliminate any payment method. Other payment methods available include: ACH, FedWire, paper checks, ARC, cash, credit cards, and debit cards. Substitute checks are expected to add a more efficient alternative to the more time-consuming payment methods (such as paper check clearing, which involves physical transportation of the paper checks). Closely related to this benefit is Point (3), lower costs, see below.

(2) Greater technological innovation. This Act facilitates technological innovation by banks, vendors, and also the Federal Reserve Banks. It is expected to speed the transition to electronic check processing, away from the more costly paper check clearing process.

Many small banks do not yet own the technology to create IRDs. It is expected that the smaller banks will either invest in the electronic check imaging equipment or choose to outsource the processing. A couple of the largest banks already own and use the technology and are currently developing tools to make the conversion more efficient. A subsidiary of Zion Bancorporation, NetDeposit, integrates "emerging payments technologies and processes to optimize the clearing and settlement of payments that start out as checks," (American Banker November Supplement, p. 17). A new system at NetDeposit decides, based on a number of criteria, for each payment, whether the most efficient form of clearing is an IRD or an ACH converted check transaction. A group of eight large banks will begin piloting a nationwide electronic check clearing system in early 2004. This system is designed to clear checks (called "forward collection" or "day 1" processing) and to handle some "day 2" processing, such as resolution of returned checks. While many banks, especially the larger banks, have the "day 1" check-imaging technology, many banks do not yet have the "day 2" services in place for Check 21.

Outsourcing to a third party vendor, as discussed above, is an alternative to smaller banks that do not wish to or cannot afford to purchase the electronic check clearing equipment. "If a bank has to spend a lot of capital on technology to support truncation, image exchange and archive technologies, at the same time check volumes are declining, outsourcing becomes a logical option," (Robert Hunt, TowerGroup, in the American Banker November Supplement). Some vendors are developing tools to aid the bank in converting a paper check to IRD at any point along the check-clearing path, at the bank, offsite, even at the merchant. Other vendors are promoting the "day 2 services", discussed above, such as resolution of returned checks, adjustments and exceptions.

The Federal Reserve is also promoting it's new services to assist banks in converting checks to IRDs and presenting those checks to the payees. The Federal Reserve can accept the electronic check images and create substitute checks to present physically to the paying bank. The Federal Reserve also has the capabilities to receive paper checks in some cases and create the electronic image and IRD for check clearing. It's clients are mostly small banks and credit unions and it currently truncates about 3 million checks a day for client financial institutions (The American Banker November Supplement, p. 12). Banks that are ready to receive electronic images will be able to receive their Federal Reserve presentments earlier than they currently do.

(3) Lower costs. IRDs should reduce costs, delays, and risks associated with ground and air transportation. It is also expected to reduce labor costs in back-office processing and enable faster processing of checks. It will likely allow banks to improve internal operations by allowing, for example, electronic sorting of unpaid checks, rather than physically sorting the paper checks. Infrastructure costs may be reduced because branch and ATM networks would no longer need to be tied geographically to processing centers. Instead, images of checks could be transmitted electronically to processing centers to create substitute checks. The reduction of time-consuming and costly transportation options

and the ability of a bank to selectively use electronic check processing or substitute checks is expected to increase banks' operating margins.

Each bank's use of the new technology will depend on its technology infrastructure and strategy, its physical infrastructure, and its customer and business profiles. Thus the magnitude of the cost savings, which will depend on the rate at which banks begin using the new authority, is difficult to determine. (Ferguson, 2003).

*To Consumers*

A number of potential benefits also accrue to consumers.

(1) Improved information flow. Faster check collection and return would allow banks to provide more timely information to depositors. For example, banks may be able to provide customers with access to on-line images of deposits and payments prior to delivery of paper statements or to provide printed copies of checks deposited at ATMs on ATM receipts. (ATM & Debit News). Consumers would have more information about bad checks sooner, which will enable them to reduce losses incurred from bad checks. (Financial Services Roundtable, letter to Congress, 11/6/02). Consumers will have faster access to their bank transactions since they will have the ability to view their images on-line. For those customers who do not have access to the Internet, their bank representatives will have immediate access to customer check images to resolve customer questions over the phone or in person. (Letter to Congress from banking trade groups, 10/11/02).

(2) Quicker access to deposited funds. Branch and ATM restructuring could allow banks to offer broader deposit options and later cutoff hours for certain checks. Check imaging would allow banks to post ATM deposits in real-time, giving customers almost immediate access to deposited funds (ATM and Debit News). These changes could lead to some checks being credited one day earlier, some checks clearing one day earlier, and interest accruing one day earlier for some checks deposited in interest-bearing accounts. (Board Section-by-Section Analysis).

(3) Reduced costs. Bank savings from reduced operating costs could be passed on to customers in the form of lower fees. This benefit is not guaranteed, however. See the section on costs to the consumers.

*Expected Costs of Check 21*

*To Banks*

This Act has been received favorably by most segments of the financial-services industry. (BNA Banking Daily). Substitute checks are not expected to result in problems different from those that are routinely addressed in today's environment. Banks are, however, somewhat concerned with two aspects of Check 21.

(1) Consumer protection under Check 21. Consumer claims must be filed within 40 days of when the financial institution delivers the relevant statement or makes available the substitute check to the consumer. The bank must then recredit the consumer no later than the day after the claim is determined

to be valid. As discussed above, the consumer's bank must produce the original check (or a better copy of the original check) showing that the substitute check was properly charged, otherwise the bank must provide expedited recredit. This provision clearly benefits the consumers at the expense of the banks. The banks may have to recredit funds to a customer's account simply because someone claimed that the IRD was not authentic. Some banks fear that this provision could be extended to all checking transactions. (S. Marlin, "Fed Check Proposal Has Banks Worried," www.banktech.com, 1/1/02)

(2) Credit Unions. A secondary concern is that most credit unions already utilize a version of check truncation. Prior to Check 21, these institutions were not required to return the original checks to the consumer, so credit union customers were accustomed to receiving the electronic images aleady. Bank customers, on the other hand, are accustomed to receiving the original checks back from the bank. Thus, credit unions have a slight advantage over banks in conversion to Check 21.

*To Consumers*

[All of the points listed below come from the Consumers Union (www.consumersunion.org).] Consumer groups have a number of concerns about the substitute checks.

(1) Fraud Prevention. The proposal does not guarantee that consumers can obtain their original checks without a paying a fee to the bank. Although the substitute check would be legally equivalent to the original check under state and federal law, it will not be as useful as the original in proving forgery or alteration because it cannot be used to determine pen pressure, and is less useful in handwriting analysis. Also, with the increased use of automation, it is likely that check signatures will be examined less closely than they are today.

(2) Privacy Protections. Check 21 contains no privacy protections on the secondary use of the information on the check that has been converted into an electronic image. A bank may build a database using check images to determine which of its consumers shop at certain kinds of retailers, or what kinds of suppliers a business customer uses.

(3) Provisions for consumer check clearing. Check 21 may speed up check clearing without shortening the amount of time a bank can hold a consumer's funds. The Act does not contain a provision requiring a corresponding change in the funds availability law, so the bank may clear a check in 2 days, but the Act does not require the bank to make the funds available to the customer any sooner than under present conditions.

(4) Consumer choice. Check 21 would eliminate the consumers' choice to receive their original paper checks.

(5) Potential Risks. Check 21 could expose consumers to new risks, including double processing of a single check or errors in reading dollar amount or account number. This could give banks an unfair ability to deter, delay, or reduce claims for damages that result from bank processing errors.

## Problems on Check 21

1. Bank A in California received a check for $1,500 from its customer for deposit in her checking account. The check was drawn on Bank C located in Iowa. Bank A forwarded the check to the Check Clearing Association. Check Clearing Association took possession of the check and converted the check to electronic data and forwarded that electronic data to Bank B in Nebraska. From that data, Bank B created a paper copy of the check inscribed with the legend "This is a legal copy of your check. You can use it the same way you would use the original check." The paper copy met all of the requirements for a substitute check under Check 21 except that the MICR line on the paper copy stated the amount was $15,000. The paper copy was presented to Bank C and the drawer's account was debited $15,000. The drawer's account then had insufficient funds to pay other checks drawn on the account, resulting in those checks totaling approximately $4,000 being returned for insufficient funds.

What are drawer's rights under the UCC, Reg. CC and Check 21?

2. Bank A in California received a check for $1,500 from its customer for deposit in her checking account. The check was drawn on Bank C located in Iowa. Bank A forwarded the check to the Check Clearing Association. Check Clearing Association took possession of the check and converted the check to electronic data and forwarded that electronic data to Bank B in Nebraska. From that data, Bank B created a paper copy of the check, which was a valid substitute check and met the requirements for legal equivalence under Check 21. Bank B forwarded the substitute check to Bank C for payment. Bank C honored the check. Through a processing error, Check Clearing Association forwarded the original check directly to Bank C and Bank C honored the check.

What are the drawer's rights under the UCC, Reg. CC and Check 21?

**Ronald J. Mann, *Making Sense of Payments Policy in the Information Age*, 93 GEO. L.J. 633, 638-673 (2005).**

Two events at the close of the twentieth century have underscored the need to think more clearly about payments policy. The first is the proliferation of markets in which credit and debit cards are used. What once was a niche product designed for the payment of expenses by business travelers has now come into widespread use in a variety of contexts that raise differing policy concerns. The second, related to the first, is the substantial shift in the locus of retail payment transactions from retail, face-to-face payments in brick-and-mortar stores to remote payments for Internet purchases. Collectively, those changes have destabilized the system for which existing payments rules were designed. . . .

The basic problem is that payments policy needs to attend more consciously to the contexts of the transactions in which payments are made. Existing law articulates rules that are bounded almost entirely by the nature of the technology with which the payment is made. Thus, we have separate rules for wire transfers, letters of credit, checks, electronic transfers, and the like. That type of boundary makes sense only for issues driven by the nature of the technology. It makes no sense for issues that should be resolved by reference to the nature of the underlying transaction in which the payment is made.

At its heart, payments law must resolve four fundamental questions: who bears the risk of unauthorized payments; what must be done about claims of error; when payments are completed so that they discharge the underlying liability; and when they can be reversed. The first three questions are categorically different from the last because they often should be resolved based on the nature of the underlying technology. Thus, for example, with respect to the risk of unauthorized payments, the fundamental question is how to design a system that gives adequate incentive to the user to avoid and mitigate losses from unauthorized transactions, while giving adequate incentive to the system operator to make advances in technology and system design that can avoid and mitigate those losses. In our legal system, we have taken the view for most high-technology payments that an almost complete allocation of the risk of those losses to the system operator is appropriate.

The premise of those rules is that even a complete allocation of loss to the network operator will leave the consumer a sufficient incentive to attend to contract provisions that resolve the legal questions summarized above. That could be true because of the hassle of reversing unauthorized charges, because of doubts that financial institutions readily will fulfill their obligations in such a situation, or even because of ignorance of the legal protections for unauthorized transactions. At the same time, the rules reflect the implicit premise that losses in technology-driven systems are most effectively reduced by technological and system-design initiatives that are exclusively within the control of the system operator. Thus, we are not surprised to see major investments in fraud-prevention technology in the credit-card and debit-card sectors. Because the justifications for those rules relate to the nature of the technology, it is plausible for federal law to prescribe such a rule for all electronic transfers from consumer accounts. It is less plausible to include a similar rule for credit card transactions based on the

availability of credit in the transaction. It would be more sensible for that rule to be justified by the fact that the transactions are processed and cleared in an electronic way, which justifies rules like those discussed above.

Rules related to error are similar. The types of events that are likely to lead to an error, as well as the mechanisms for detecting, confirming, and responding to an error, usually depend on the technology that is used to clear and process payments. Thus, it makes some sense that the rule for transactions processed electronically, which are covered by the EFTA, would differ from the rule for transactions processed entirely by paper/conventional check transactions, which are governed by Article 4. At the same time, the continuing shift of check transactions from paper to electronic processing, perhaps to be accelerated by the Check 21 Act, might undermine that distinction.

Rules that determine when a payment is made are similar, in that they are for the most part made based on the practicalities of a particular system. Thus, in the wire-transfer system, we say that the payment is complete when the beneficiary's bank becomes obligated to pay the beneficiary. In the checking system, we say that the payment is not complete with respect to an ordinary check until the check is paid, but that it occurs with respect to a cashier's check when the payee accepts the instrument.

Rules related to reversibility, however, are completely different in that they should depend on the dynamics of the underlying transaction in which the payment is made. In the simplest cases, payment systems are specialized for use in particular situations. Thus, for example, in business transactions, parties often choose to make payments with letters of credit or wire transfers. Those systems include particular rules designed for the particular transactions in which they are used, which determine the timing and circumstances in which payments can be recovered or stopped once the process has been initiated. Because those systems are quite specialized, the system-specific rules work well for them.

It is important to see that the rules make sense because of the underlying transaction and not because of anything about the payment instrument itself. For example, there is nothing inherent in the use of a bank's written commitment to pay that calls for the formalistic emphasis on both an absolute obligation of payment upon presentation of conforming documents and at the same time an utterly unconstrained right to refuse payment upon presentation of nonconforming documents. On the contrary, that structure has grown up solely as an adjunct to the particular sales transaction for which the instrument is commonly used. If the law of letters of credit makes sense -- and for the most part I think it does -- it makes sense only in light of a practical assessment of the realities of the sales transactions in which that law is brought to bear.

The law of wire transfers is animated by an even more conclusive rejection of reversibility. From the perspective articulated here, that emphasis reflects a desire to create an entirely "pure" payment system, divorced from any transaction; the wire transfer is suitable for cases in which the party making the payment is willing to forgo any payment-related right of recovery at all. Once the payment is made by wire transfer, there is no substantial recourse inside the system. That makes sense in context, because wire transfers are used typically by reasonably informed businesses that select such a pure system in contexts in which the most important aspect of the transaction is to provide reliably final payment as promptly as possible.

When we turn to less specialized payment systems, however, the issues become considerably more difficult. Historically, if not in current practice, the most prominent is the negotiable instrument. The most distinctive feature of the negotiable instrument is the ability of those that acquire the instrument to obtain holder-in-due-course status. As a practical matter, that status involves an ability to separate the instrument from the transaction as much as possible and thus make the obligation to pay irreversible at an early point, at least as regards claims related to the underlying transaction.

The complicating features of negotiable instruments law, however, largely operate to render that separation irrevocably permeable. For present purposes, what is most important is that the policy justifications for those complicating features uniformly relate to concerns about the balance of power in the underlying transaction for which the instrument was issued. For example, several arbitrary formalities limit the use of the negotiable instrument to cases in which the parties are sufficiently sophisticated and focused to ensure that the payment instrument is drafted in a stripped-down form that includes the requisite formal language and omits any substantial discussion of the underlying transaction. Similarly, even if the instrument is issued in a proper form and transferred in the appropriate way, certain defenses will remain valid against the purchaser. These defenses, the so-called real defenses, address such matters as contracts with minors or contracts procured by fraud; they plainly are designed to protect fundamental concerns about fairness in the underlying transaction. Finally, in nonmortgage credit transactions that involve consumers, holder-in-due-course status is generally prohibited as a matter of supervening federal law.

The negotiable instrument, of course, has been superseded for the most part by its main surviving descendant, the check, an instrument for which the classic rules of negotiability have little continuing significance. Because the check is less specialized than the letter of credit or the wire transfer or the negotiable instrument in its heyday, its rules do not reflect the close accommodation to the balance of the underlying transaction that typifies the law of those earlier, primarily business-related payment systems. Many of the most important rules in the checking system allocate losses from unauthorized transactions and risks of errors related to the payment device that have little or nothing to do with problems in any underlying transaction. Of course, the focus of modern check law on such questions, to the exclusion of any substantial concern for the consumers that use them, is the basis of many of the most forceful criticisms of Articles 3 and 4 as they now appear in the UCC. But even the checking system includes rules that address the basic problem at the intersection of every payment system and the transactions for which it is used: the consequences of the payee's failure to perform. On that point, the UCC grants the check-writer a right to stop payment without any assessment of the validity of the claim.

The check, however, is now outdated. As we now know, it has been declining in use for some time. The pressure to revise rules related to the check thus will continue to decrease. At the same time, consumer use of credit and debit cards is increasing rapidly. Moreover, of importance for our purposes, credit and debit cards over the last decade have come into dominance in areas in which they were not frequently used in the past. In particular, credit cards have come to dominate payments in remote-purchase transactions, especially on the Internet. Debit cards, reaching broad use in this country

only in the last decade, are now commonly used in face-to-face transactions and perhaps soon will be a major option for remote transactions as well.

Thus, if there is an area of payments law that is both important and currently contestable, it is the law that addresses card-based payment transactions. . . .

REVERSIBILITY IN EXISTING PAYMENT SYSTEMS

. . .Although the landscape is changing rapidly, three systems now dominate non-cash consumer payments in the United States. As of 2002 (the last year for which complete statistics are available), checks still were delivered in 23% of all retail payment transactions, credit cards were used in about 17% of those transactions, and debit cards were used for 11% of transactions. The following sections discuss the reversibility rules that apply in each of those three systems.

*Reversibility with Checks*

The checking system offers the customer what seems at first to be the broadest right to retract payment, a right to stop payment set out in U.C.C. § 4-403(a). The customer's right to stop payment is absolute: the customer can act for any reason it wishes or even, it seems, for no reason at all. The general concept, as the comment to that provision explains, is that the right to stop payment is a basic right that should be incident to a bank account, even if the bank occasionally incurs some loss through the customer's exercise of that right.

However salutary that policy might sound in the abstract, technological developments have so overtaken it that in the contexts most important to consumers it has become almost a dead letter. The difficulty is in the last clause of the relevant sentence of Section 4-403(a), which limits the time within which the customer can send a stop-payment order. Specifically, the notice must be sent at a time that gives the bank a reasonable opportunity to act "before any action by the bank . . . described in Section 4-303." That section, in turn, describes the points in the life of a check after which a third party cannot prevent a bank from paying a check; the key point for this discussion is the moment when "the bank settles for the item without having a right to revoke the settlement under statute, clearing-house rule, or agreement." Thus, the customer's right under Section 4-403 to force its bank to stop payment on a check that the customer has written terminates when the bank's obligation to pay the check, normally to a depositary bank or some intermediary that has transmitted the check to the customer's bank, becomes final under Section 4-303. . . .

The problem for the customer is that modern settlement mechanisms are likely to get the check to the customer's bank, the "payor" bank in the UCC's terminology, quite swiftly. For example, if the customer writes the check locally, that is, in the metropolitan area in which the customer's bank is located, the payor bank often will receive the check on the very day that the customer writes it. Because the federal Expedited Funds Availability Act (EFAA) generally requires depositary banks to allow their customers second-business-day availability for funds deposited by local check, banks into which such checks are deposited have powerful incentives to process those checks rapidly. Responding to that incentive, large banks in major metropolitan areas have developed efficient local clearinghouses that

typically get local checks into the hands of the payor bank by the middle of the night on the date on which those checks are deposited. . . .

This acceleration of check processing is an improvement to the checking system, because it reduces the inefficiency of the time lag between the moment the check is tendered and the moment that the payee reliably has access to the funds. But the statutory rule that ties the customer's right to retract/stop payment to the processing system has important consequences for the consumer. To understand those consequences, consider a typical check, written at ten in the morning to purchase a lawnmower at a store in the consumer's hometown, in which the consumer's bank is located. The merchant might deposit the check late that afternoon, in which case it probably would reach a clearinghouse that evening and the payor bank sometime in the middle of the night. The payor bank, in turn, would become finally obligated to pay the check if it did not dishonor the check by early the following afternoon. Thus, the consumer's right to stop payment on the check would last little more than twenty-four hours. . . .

To be sure, many consumers purchase things in locations far from their homes, in locations from which depositary banks would not have access to those speedy local clearinghouses. However, even for remote purchases, the big picture for the consumer is not particularly sanguine. For one thing, merchants are much less likely to accept a check from a customer whose bank is in a remote location than they are to accept such a check from a local customer with a local bank. Moreover, when the merchants do take such checks, their banks have every incentive to move rapidly to clear the checks; funds deposited in the form of nonlocal checks ordinarily must be made available to depositors within five business days. Thus, both the Federal Reserve and the banking industry have devoted considerable resources over the last few decades to speed the processes by which they clear those checks.

The result is that a substantial majority of nonlocal checks are received by the payor banks within two or three business days from the day on which they are written. Thus, even for nonlocal checks, the customer probably has only three or four business days within which to stop payment. Moreover, for remote purchases it is important to recognize the heightened likelihood of a deferred discovery of dissatisfaction with the purchase. The consumer that purchases something while away from home often will not discover a problem with the purchase until returning home; if the return home is just a few business days after the date of the purchase, then, as surely as if the check had been written locally, the consumer's right to stop payment will lapse before the problem is discovered.

In sum, however generous the promise of the UCC's right to stop payment in checking transactions seems at first glance, the reality is that American consumers have no generally effective practical right to retract payments made by check. Once the check is handed to the merchant, the recourse of the consumer as a practical matter is limited to the cumbersome device of a legal action claiming some defect in the purchased goods or services.

*Reversibility with Credit Cards*

The above summary might strike the casual reader as unexceptional. After all, when a consumer purchases something with cash, a bout of next-day dissatisfaction will not give the consumer the right to go back to the merchant and force the merchant to return the cash. If the consumer wants to retract

the cash from the merchant, the consumer will have to convince the merchant of the validity of the complaint or, at least, of sufficient sincerity in the complaint that the merchant will disgorge the cash even if it doubts the validity of the complaint. From that perspective, the limited practical effectiveness of the check-using consumer's right to stop payment is not likely to be upsetting.

For the second major non-cash payment system, however, the situation is quite different. If the hypothetical lawnmower purchaser had used a credit card, it would retain, for a period likely to extend several weeks, two overlapping rights to retract payment from the merchant. Those rights both arise not under the state-promulgated Uniform Commercial Code, which has little or no application to credit card transactions, but rather under the Truth in Lending Act (TILA), Title I of the federal Consumer Credit Protection Act.

The first appears in TILA § 170(a), which grants cardholders that make purchases with a credit card the right to assert against their issuing banks any defense that they could have asserted against the merchants from whom the purchases were made. In legal substance, Section 170(a) articulates a general anti-holder-in-due-course rule for credit card transactions. Thus, the section protects the cardholder's defenses even when the claim for payment is transferred from the merchant, from which the purchase was made, to the bank that issued the credit card.

But the practical effect of the rule is somewhat broader, allowing consumers to retract payment from merchants essentially at will. The key is the internal network rules of the major credit card systems. Under those rules, a card-issuing bank can and typically does unwind, or charge back, any credit card transaction for which a customer disputes its obligation under TILA. Thus, as soon as the cardholder interposes a claim under Section 170(a), the issuing bank charges the transaction back to the bank that processed the transaction for the merchant. That bank, in turn, recovers the funds that it advanced to the merchant for the transaction in question. Thus, if the merchant wants to receive payment for the challenged transaction, the onus is on the merchant to take some action to substantiate its right to payment.

To be sure, Section 170(a) itself is subject to various limitations. For one thing, it does not apply to transactions that occur both outside the state of the cardholder's residence and more than 100 miles from that residence. For another, the right expires when the cardholder pays the charge in question. Nevertheless, even with those limitations, the right seems much more likely to have significance to the consumer than the stop-payment right for checks described above. Assuming a four-week credit card billing cycle, the average bill will not come for at least two weeks after the date of the transaction, and the date on which payment is due will be at least several days after that. Thus, even for cardholders that ordinarily pay their entire bills promptly each month, Section 170(a) affords an effective remedy, at least for local transactions, that extends for a period of weeks after the transaction.

Moreover, the statute also provides a broader remedy for cases in which the merchant fails to perform entirely, as in the transaction that inspired this Essay. If the case is one in which the goods or services were not delivered at all, the cardholder's complaint falls within the broad definition of billing errors in TILA § 161. That section is not covered by the geographic limitation in Section 170; thus, it can be applied to transactions of any location. More importantly, billing-error claims need not be

presented to the issuing bank for months; the statute requires only that the cardholder provide written notice to the issuer within 60 days after the date on which the creditor sent the relevant statement to the cardholder. Also, the billing-error claim continues even if the charge in question already has been paid. As with the right to withhold payment under Section 170(a), the ordinary effect of a claim of billing error by a cardholder is a prompt retraction by the issuing bank of the payment that it previously made to the merchant.

In sum, the consumer that reaches for the credit card instead of the checkbook has a much more effective device for pressing subsequent disputes with the merchants from whom the consumer buys retail goods and services.

*Reversibility with Debit Cards*

The final consumer payment device of current significance is the debit card. Although the debit card looks much like an ordinary credit card, the cards are distinct in ways that are quite significant legally, largely because the debit card authorizes the merchant and the issuing bank to obtain payment directly from a designated bank account of the cardholder. Thus, the payment comes from the cardholder's bank account at the time of the transaction or, at most, a few days later; unlike the credit card, there is no delay for the transmittal of a statement and payment of the monthly bill by the cardholder.

Like the credit card, the consumer protections for debit cards come from federal law, in this case the Electronic Fund Transfer Act (EFTA). The rules under the EFTA, however, differ starkly from the rules under TILA. Specifically, the EFTA contains no analogue either to TILA Section 170(a)'s right to withhold payment or to the billing-error rules in TILA Section 161. Thus, payments made with a debit card are just as final as if they had been made with cash.

## THE EXISTING POLICY JUSTIFICATION: LIMITING IMPRUDENT BORROWING

Stepping back from the details of the legal rules discussed above, it is easy to discern an overarching policy justification for the existing framework, rooted in the long-standing concerns of the Anglo-American legal system about the rationality with which borrowers evaluate credit transactions.

From that perspective, the existing rules divide consumer payments into two classes. The first class includes transactions in which the consumer makes contemporaneous payment: cash, checks, and debit cards. Because the consumer at the time of the transaction understands that the payment is being made more or less immediately, the consumer is treated as having adequately assessed the wisdom of the payment in question.

Credit cards, however, are quite different from that perspective, because the consumer that purchases with a credit card does not make immediate payment. Rather, although the merchant receives contemporaneous payment, the payment by the consumer is deferred automatically until a statement is received and, at the consumer's option, more or less indefinitely, as permitted by the strikingly lenient repayment options typical of the modern American credit card.

The Anglo-American legal system has a long tradition of protecting borrowers from the folly of imprudent borrowing. The most famous example surely is the centuries-long effort of English courts to invalidate a series of creditor devices that had the effect of granting mortgage creditors a broad right to take real-estate collateral from borrowers that failed to perform precisely as they had promised at the time of the loan. That instinct continues to have broad application today, as courts steadily broaden the range of devices to which that invalidation rule extends.

Although it is a bit much to superimpose the insights of modern academic literature onto the policy instincts of the medieval English judiciary, that policy finds broad support in the specific concerns of the nascent behavioral economics movement. Scholars in that field often point to an overlapping set of tendencies that generally lead a normal individual to underestimate the likelihood of negative future events that have not previously been salient in the experience of the individual's circle of personal acquaintances. A similar, related phenomenon leads to systematic underestimation of the likelihood that a negative event will happen to the estimating individual, even if the individual accurately understands the overall likelihood of the event. Both of those phenomena are exacerbated by the likelihood that consumers have higher discount rates for events perceived as likely to occur far in the future than they do for events likely to occur in the immediate future. Thus it is reasonable to worry that borrowers entering into credit transactions do not adequately weigh harms likely to befall them from the difficulties that might come at the time that repayment is due. Also, with a little more subtlety, those that pay in advance might underestimate the likelihood that they will harm their strategic relations with the merchant by agreeing to pay now and receive the subject merchandise or services later.

Finally, that concern works well as a lens for understanding TILA. TILA does little or nothing to regulate anything about credit card transactions divorced from their credit-related features. The bulk of its regulations appear to rest on the concern that crafty credit card issuers will trick consumers into using credit cards without understanding the costs of repayment. Thus, the statute relies heavily on a variety of disclosure rules reflecting the well-intentioned notion that mandatory disclosures will resolve the cognitive problems that afflict the potential credit card user.

## A BETTER FRAMEWORK: REDRESSING AN IMBALANCE OF LEVERAGE

Although the concern about consumers' general failure to appreciate the risk of borrowing transactions seems to provide a relatively coherent normative explanation of the current system, a comparison of that explanation to the framework discussed [above] suggests that the existing framework is deeply flawed. Three general points illustrate my concerns. First, developments in payment systems render the distinction between credit and debit payments illusory. Second, although the point necessarily is subjective, and not to be pressed absolutely, I believe that the concern about cognitive problems in credit card transactions is in practice largely irrelevant. Third, and most importantly, I think that concerns about an imbalance of leverage in dispute resolution are much more significant, and call for an even broader consumer-protection policy than the credit-cognition policy justifies or the existing legal rules provide.

## THE ILLUSORY CREDIT/DEBIT DISTINCTION

The first point looks to the reality of current market use of payment systems, in which the distinction between debit and credit payment devices has eroded almost completely from the consumer's standpoint. The key point here has been the recent rise of the debit card from a highly specialized and limited retail payment instrument to an instrument of widespread use and soon-to-be universal acceptance.

Although the debit card was invented more than thirty years ago, it did not rise to prominence until the last days of the millennium. Many factors doubtless play a role in that rise, including the steadily decreasing costs and increasing reliability of the dialup telephone connections on which retail debit card usage depends. 96 But one factor is crucial: the development of the PIN-less Visa and MasterCard debit card products (VisaCheck and MasterMoney, respectively).

Although neither of those products existed until the mid-1990s, they already have surpassed in market share the traditional PIN-based regional debit card networks that have been operating for much longer. Starting from less than 400 million transactions worth only $ 5 billion in all of 1994, by 2002 the PIN-less systems were used in more than 8 billion transactions for $ 318 billion, compared to only 5.2 billion transactions worth $ 162 billion for the conventional PIN-based products.

The cynic might attribute the rapid growth of the PIN-less systems to an unrelenting advertising campaign (especially for the VisaCheck card). However, a more fundamental reason for the success is the advantage that the Visa and MasterCard products have over the traditional regional cards at the point of sale: an installed user base that includes an overwhelming majority of retail merchants in the United States. Now that credit card transactions are cleared almost exclusively by telephone connections, the basic infrastructure for the debit card is in place at almost all Visa and MasterCard merchants. Those merchants can take debit card transactions using the same terminals with which they take Visa and MasterCard credit card transactions.

The difference in the nature of the authorization transactions -- an examination of a particular bank account rather than a particular line of credit -- seems insignificant to the merchant in the current, telephone-based clearing environment. In either case, the merchant's terminal dials up the designated telephone number and transmits the card number and related information about the card and the transaction. The issuer's computer simply checks a different database for transactions that use debit card numbers than it does for transactions that use credit card numbers. The same analysis applies to the collection arrangements, which require deduction from a checking account instead of posting to a credit card account. That difference is irrelevant to the merchant, which receives funds in its account promptly after it forwards the appropriate transaction information. Thus the merchant that clears MasterCard and Visa credit card transactions electronically needs nothing new to accept the VisaCheck and MasterMoney debit card products.

A regional debit card network attempting to persuade a merchant to accept its cards for point-of-sale transactions has a much more difficult time because the merchant necessarily will have to invest in some additional technology. In some cases, the debit card network may require the use of a different

terminal -- one that can accept entry of a PIN -- which necessarily will increase costs for the merchant. At a minimum, the merchant will have to alter its existing procedures to cause its terminal to recognize the situations in which it must dial the telephone number for the regional debit card network instead of its regular acquiring credit card bank. That might sound like a simple task, but it will seem complicated to some merchants, and no alterations will be necessary for merchants that choose to accept only VisaCheck and MasterMoney.

Furthermore, the merchant is quite unlikely to suffer a significant loss of business because of a failure to accept PIN-based debit cards. Currently, few of us will enter a store planning to buy, but depart when we discover that the store takes a Visa or MasterCard product but not our ATM card. The converse, of course, is even more telling. Quite a number of consumers would depart without buying or choose not to return if a store did not accept Visa and MasterCard products, even if the store did accept an ATM card from a large local bank.

Finally, and perhaps a bit less justifiably, Visa and MasterCard adopted the forceful tactic of insisting that their merchants accept all of their products, debit and credit. Thus, any merchant that already accepts the Visa and MasterCard credit card products was obligated to accept the Visa and MasterCard debit card products. A number of large merchants were unhappy about that, largely because the Visa and MasterCard debit card products exact discount fees substantially higher than those charged by the traditional regional debit card networks. Retailers responded by instituting antitrust litigation that eradicated the practice. By the time the tying practice was eradicated, however, the debit card system already had become widespread.

The result is that the leading credit card products and the leading debit card products in our country now use precisely the same technology. The cards have the same appearance, they use the same anti-fraud technology, they are cleared through the same network, their transactions are verified in the same way -- by signature -- and they are issued by the same entities. This fosters a world in which the consumer often cannot even tell whether the card pulled from the wallet is a credit card or a debit card. Indeed, because many banks issue cards that have both debit and credit features, the answer often is that the card is both. In that case, the choice depends on nothing more than which button the clerk presses on the telephone terminal. Moreover, in some cases, under current technology, a consumer can use a card only by pushing a button at the checkout counter that inaccurately identifies the card!

In sum, the practical distinction in modern commerce between a credit card and a debit card is one that would be obscure to even sophisticated consumers. Given the limited likelihood that the typical consumer understands the distinction, it is at best dubious for the law to place as great a weight on that distinction as it currently does.

## THE LIMITED USE OF CREDIT WITH CREDIT CARDS

The confusing similarity of the leading debit and credit card products would not matter so much if the credit aspect of the transaction were central to the consumer's mind. A consumer buying with a credit card would regard the transaction as substantially less serious and immediate than a transaction with a debit card.

In the modern era, however, the credit aspect of the purchase transaction is increasingly obscure. For many of us, the credit card is used much more for convenience than for any purpose related to borrowing. To put it another way, we often pull a credit card from our wallet not because we lack the present wealth to pay the purchase price for the item in question, but for some other reason unrelated to a credit decision.

If there is anything that proves that point, it is the rise of the "convenience" credit card user, who charges purchases on the card but pays off the bill in full each month. 106 Once a relatively small sector of the market, convenience users now constitute about 40% of the market. For those users that consciously limit their spending to what they can repay out of resources available that month, it is almost deceitful to treat the transaction as one involving a significant extension of credit.

Many people use the credit card for reasons completely unrelated to credit. The most economically rational is a desire to get the "float" -- the use of the funds during the time that elapses between the date of the transaction and the date that the credit card bill must be paid to avoid a finance charge. But the rapid rise of the debit card, which has no such float, suggests that the float is not the dominating market factor in the choice of a credit card over cash or a check.

More likely reasons probably include the desire not to have to carry enough cash to cover all of the purchase transactions of our daily life. That is not just a desire to limit the risk of a loss from theft, but also has to do with the relative ease with which credit cards can be used as compared to the ease with which we can get cash from our banks. Many of us stand at retail counters thinking something like, "If I use a credit card here it means I won't have to stop at the ATM to get money before I go to work tomorrow."

Another consideration for some relates to the ease of recordkeeping. If most transactions can be pushed onto a single credit card, which provides a single consolidated monthly statement, the task of monitoring expenses to review compliance with a budget (or, perhaps more commonly, to understand the failure to comply with a budget) is rendered much easier.

Still another reason, at least by comparison to the check, is the desire to close the transaction rapidly. Although this has not always been true, it now plainly is the case that the check is the slowest of retail payment mechanisms. When a grocery store customer pulls out a checkbook to pay for groceries, the hurried customers in the line behind inevitably sigh, knowing that their wait will be protracted by the additional time for the consumer to write the check and for the clerk to decide whether to accept it.

Finally, a recent factor is the affinity program. A credit card often carries with it "perks" of some kind that have value to the cardholder. I am motivated to obtain frequent flyer credits on my favorite airline; a colleague is motivated to obtain credits toward purchase of an automobile from a particular manufacturer. Those perks give all of us who have such cards an incentive to place charges on a credit card -- especially large charges -- even if we could just as easily write a check, because passing the transaction through the credit card issuer earns us something of value that amounts to a discount on the transaction price.

Those points speak to my thesis with some ambiguity. One could say that the reasons for using a credit card are likely to induce many to purchase things on credit without realizing that they are borrowing, thus pushing credit card users into an imprudent cycle of borrowing. And I recognize, of course, that credit cards are still used to borrow money. Americans as a class now carry a staggering amount of credit card debt, in the range of 750 billion Indeed, I argue in related work that the rise of credit card debt has contributed in part to a disturbing rise in consumer bankruptcy in this country.

The extent of credit card borrowing does not undermine my point that the decision to use a credit card is not necessarily the same as the decision to borrow. In practical import, two different decisions must be distinguished: the decision to use a credit card to make a purchase and the decision to borrow from a credit card issuer. Obviously there are cases in which people purchase things on credit cards planning to pay for them at the end of the month, but then find themselves unable to pay. For those cases, the credit cognition concern has some weight. However, the existence of some range for the credit cognition concern does not respond to my basic view that the credit card transactions raise major policy considerations as a payment method, entirely apart from their borrowing aspects.

The cognition concern need not be discarded, but just the same, it should not be pushed to the exclusion of other concerns that have more practical significance in the broad range of daily transactions. The fact is, for many of us the credit card involves no credit at all. A sound payments policy must take account of the dynamics of those transactions as well as the more traditional credit transactions. The next section suggests that the reversibility rule in TILA responds well to a policy concern common to all of those transactions, and to debit card transactions as well.

LEVERAGE AND DISPUTE RESOLUTION

As summarized [above], the practical impact of the relevant provisions of TILA is to alter the burden of going forward in a dispute about a retail purchase transaction. Without TILA -- that is, in a cash or debit card transaction -- the merchant has the funds and the consumer can obtain satisfaction only through the exercise of some legal remedy or threatened non-legal sanction such as public outcry designed to harm the merchant's reputation. Conversely, if TILA intervenes, then the charge will be removed from the cardholder's account and the funds retracted from the merchant, at least temporarily. Thus, the merchant will have to take action to obtain the disputed funds. With zero transaction costs and perfectly balanced positions that change would not matter. But the general imbalance in litigating capabilities between merchants and consumers at least suggests the possibility that the shift of the burden of going forward could improve the effectiveness of the system considerably.

At bottom, the consumer with TILA as a weapon is much better positioned in the dispute than the consumer without TILA. Moreover, if the improvement of the consumer's position seems appropriate then the lesson of the earlier sections of this part is obvious: the improvement in the consumer's position should not depend on whether the consumer uses a debit card or a credit card. To put it bluntly, the distinction in consumer protections between credit cards and debit cards rests on a circumstance -- the possibility that the consumer will fail to pay the bill at the end of the month -- that is irrelevant to the basic transaction between the consumer and the merchant. Thus, it should be irrelevant to the procedures that facilitate the consumer's ability to obtain satisfaction in that transaction.

*Is TILA Beneficial?*

It is, of course, difficult to be sure that the protections offered by TILA provide a net benefit to all consumers. If those protections impose costs on merchants and issuing banks, as they almost certainly do, then it is natural to expect the charges that merchants and credit card issuers charge to customers and cardholders will rise to compensate for those additional costs. If those additional charges exceed the benefits cardholders obtain from TILA, then the TILA protections impose a net loss on the cardholders for whose benefit they seem to exist.

The greatest problem in assessing those provisions is the difficulty of obtaining the relevant empirical information. In particular, it would be most useful to know the frequency of cardholder claims under TILA and the frequency with which those claims ultimately prevail. If we knew, for example, that such claims are raised relatively rarely but succeed quite commonly when they are raised, we might conclude that the provisions impose nugatory costs on issuers and merchants and substantial benefits to the cardholders that use them.

Conversely, if we knew that cardholders frequently interpose frivolous claims solely to avoid payment of just obligations, we might conclude that the costs that the provisions impose on the system outweigh any benefits they might bring to worthy cardholders. The difficulty of evaluating that question is aggravated by the impossibility of drawing firm conclusions from a finding that a large fraction of cardholder claims are rejected. The problem is that it is entirely possible that cardholder TILA claims are rejected not because they are meritless, but because the same litigation imbalance that could lead merchants to reject informal inquiries by customers -- thus leading the customers to invoke their TILA rights -- would lead the same merchants to reject the claims when presented through the issuing bank under TILA.

To the extent any light can be shed on those empirical questions, my impression based on a few interviews with industry sources is that the former picture is closer to the truth in two important ways. First, consumers interpose chargeback claims quite rarely. All of the sources to whom I spoke agreed that the general rate of complaint-based chargebacks is quite small, significantly below one percent. That should not be surprising given the obvious likelihood that the noncash transaction costs -- the hassle of successfully shepherding such claims through the complex TILA process -- will exceed the expected recovery on any but the largest and most plainly meritorious consumer complaints.

Second, the general perception in the industry is that merchants accede quickly to quality-related complaints by their customers. As one executive explained, "the merchant if they are smart would just immediately issue a credit and not argue at all." To be sure, the willingness to accommodate is likely to vary from merchant to merchant and also differ with the size of the claim. Furthermore, it is not clear that merchants are motivated by a perception of their own fault. The apparent motivations are much broader and induce concession by the merchant without regard to the merits of the consumer's claim. Among other things, the system charges merchants a fee for each transaction that consumers charge back. Also, more tellingly, banks charge higher discount rates -- higher charges on all transactions, not just disputed ones -- to merchants for whom an unusually high rate of transactions are charged back. Indeed, if chargebacks rates are unusually high, a bank might refuse to provide service to the merchant

entirely, effectively denying the merchant access to the Visa and MasterCard system. To the extent that merchants do contest claims, the clear impression in the industry is that the dispute resolution system is weighted heavily in favor of the consumer. . . .

It is important to point out some reasons why the TILA provisions may be an appropriate exercise of regulatory authority. The first point, and doubtless the most important, is that this is not an area in which consumer choice can be expected to result in a set of perfectly efficient contract terms. As Cooter and Rubin have explained in some detail, several related factors make market failure relatively likely in the development of provisions in a contract with a financial institution for payment services. Among other things, the cost of negotiation is likely to exceed the potential benefits to the individual consumer; the consumer is unlikely to have complete information about the relevant differences between potential card issuers; and even if the consumer does have such information, it is quite difficult for it to evaluate the tradeoff such differences should have by comparison to the more salient features of the transactions: the fees that the issuer charges for its services.

Furthermore, for the reasons explained above, a standard analysis from behavioral economics justifies considerable skepticism about the likelihood that the consumer selecting a payment card from a menu of potential issuers will give adequate weight in its selection to the issuer's rules for dealing with cardholder-merchant disputes. The typical consumer is likely to focus much more closely on the interest rate and affinity benefits than it is on any information it might be able to glean about the issuing bank's practices in resolving cardholder-merchant disputes.

A natural regulatory response to that analysis is that a more effective disclosure regime could produce sufficient information to ensure that consumers make an informed choice between credit and debit cards. That could be done in any of several ways: through consumer-awareness advertising by government agencies, by warnings included in monthly bank statements or even on the debit card itself, or perhaps by information at the point of sale. It is of course not possible to be sure that such a scheme could not work, but any proponent of such a plan must recognize the general difficulty of using disclosure of information to overcome behavioral biases. This is particularly true here, where the information is relatively complex (the distinction between the different kinds of cards and the legal import of that distinction) and when the people most in need of the information are not highly educated and sophisticated but rather ordinary consumers. Proponents of disclosure in this context need to recognize that regulatory systems that might be effective when sophisticated intermediaries can use the information to drive market-clearing prices, as in the securities industry, are not likely to be effective in altering the atomistic behavior of individual consumers. The best example from existing experience probably is the home mortgage market, in which the federal government has waged a concerted effort to disclose relevant information to consumers, but by all informed accounts has had little positive effect. Thus, although I cannot be sure that a disclosure regime could not foster informed choice, the situation does justify skepticism.

More broadly, giving consumers more detailed information about the incoherent distinctions that characterize the existing system does not address the concerns discussed above. To be sure, a perfect and costless disclosure system addressed to perfectly rational consumers might result in perfect choices

with respect to reversibility, but in any real-world scenario there will be considerable costs and imperfections. Thus, even if we can preserve a menu that allows consumers and merchants to select from different reversibility rules, the system would be better than it is now if that menu was coupled with default rules that came closer to reaching the optimal results than the rules currently in place do. That ideal menu, in turn, would be supplemented with policies designed to ensure that consumers understood the relevant rules, so that they could select the appropriate payment system for their situation. A coherent system should both lower the costs of disclosure -- because it would be easier to explain -- and lower the costs of selection among systems -- because the default rules would be closer to optimal.

Another important concern is the differing classes of consumers that will hold debit and credit cards. Although credit cards have now penetrated quite thoroughly into our society, a significant portion of the population, 24% of families by one recent estimate, do not have a credit card even now. That 24%, however, is disproportionately composed of poor and minority families. Thus, for example, only 35% of families with an income below $ 10,000 have a credit card, but 98% of families with an income over $ 100,000 have one. Consumers that do not have a credit card do not choose a payment system without the reversibility option because they are imprudent; they choose it because they are poor. That is not a problem to be solved by enhancements in the information available to cardholders.

The information effects of the rule also are relevant. As suggested above, the financial system currently relies on chargeback information in part to identify merchants that engage in unfair practices and consequently to exclude them from the credit-card system. Thus, the information generated by a consumer's chargeback decision itself provides a positive externality to the system. That is true whether the individual chargeback claim has merit or not because charge-back claims as a whole are likely to correlate inversely with merchant quality. That positive externality should have some weight in analysis of the overall effect of the system.

Finally, even the most optimistic believer in the effectiveness of reputational sanctions on merchant actors must acknowledge the existence of a large class of consumer retail purchases in which reputational sanctions will give the merchant little or no incentive to provide fair redress to the consumer. Most obviously, the merchant might be insolvent or close to insolvency and thus have no concern for future transactions. More generally, merchants remote from the cardholder's residence -- engaged in sales to tourists and the like -- rationally might doubt the possibility that a disappointed customer would be able to impose any significant reputational harm on the merchant, however intransigent the merchant might be.

FACE-TO-FACE TRANSACTIONS

Collectively, the preceding points are enough to persuade me in the absence of any countervailing empirical evidence that the TILA protections reflect an appropriate intervention to redress a significant imbalance in litigation capacity. The question, then, is what policies that conclusion implies. Albeit with some trepidation, I propose an extension of those protections to all face-to-face retail transactions that use cards that access either a deposit account or a line of credit. My proposal would differ from existing

law both in extending the existing TILA rule to debit cards, and also in removing the limitation on that rule to local transactions that currently appears in TILA Section 170(b).

One obvious concern is that the extension of the reversibility rule to the debit card context will increase the costs of debit cards to those that use them. If so, the reform might alter the relative desirability of the products in significant ways. From one perspective, that is not a reason for concern. The only reason that it might alter the costs significantly is if there is a significant volume of chargeback activity, which suggests that there are a significant number of transactions in which consumers currently lack effective recourse. On the other hand, as discussed above, there is the empirical possibility that a significant level of chargebacks might reflect abusive consumer conduct rather than dishonest merchant conduct. For the reasons discussed above, however, I think it unlikely that there will be a sufficiently large volume of chargebacks to affect pricing significantly, largely because the volume of payment-reversing charge-backs in the credit-card system now is quite small.

It would be easy to push that rationale farther to transactions that use cash or checks, but for several reasons that seems to me unwise. First, the most determined consumer advocate could not credibly claim that the TILA policies should be extended to all transactions and all payment instruments. There is some category of transactions for which reversibility would be completely incompatible with the expectations of the parties, if only because the purchased object is one for which the likelihood of a dispute is too low to justify such a remedy. I think, for example, of the New York City street vendor from whom I might buy a newspaper or beverage.

To accommodate those transactions, it seems crucial that the system provide a menu of payment options with different reversibility attributes. To be sure, one could argue that the law should redress problems of leverage imbalance through the imposition of a single set of rules on all consumer payment systems. That seems, however, to go too far. For one thing, as long as there is a menu of payment systems that includes reasonably practical options with reversibility and without reversibility, the system imposes relatively small costs on merchants and customers because merchants can insist on irrevocable payment, if they wish, simply by insisting on cash or cash equivalents. Consumers concerned about reversibility, conversely, can shift patronage to merchants that accept reversible payment systems or choose to use those systems when merchants accept both types.

The discussion above, however, convinces me that the need for a menu of options justifies a distinction between credit and debit cards primarily because that distinction is not likely to present a realistic option in the current milieu. There certainly is a tradeoff between a system in which consumers choose among the various payment systems based on their reversibility attributes and a system in which legal rules establish a single reversibility rule that governs all transactions of a particular type without regard to the payment mechanism that the consumer selects. The first system reflects the difficulty any government would face in defining the proper universe of transactions to be covered by any particular rule of reversibility and relies on market forces to produce the appropriate coverage. The second system reflects the likelihood that market forces, even when supported by government disclosure and information efforts, cannot produce an appropriate result. The discussion above suggests to me that,

in this context at least, it is plausible to follow the second route -- having the government articulate mandatory rules of reversibility based on the type of transaction.

The next question is how to define the boundaries of the covered transaction. The logic of the framework of this essay is that distinctions among reversibility attributes should depend at least in part on the nature of the transaction. Thus, in an ideal world, perhaps the legal rule that described transactions in which payment was reversible would define the relevant class by reference to various features of the transaction such as the type of goods and the purchase price.

Notwithstanding the existing provisions in TILA Section 170(b), it does not make sense to exclude remote transactions. The premise of that exclusion in existing law is that credit card issuers will have arrangements with local merchants that will make it easy for them to verify the quality of those merchants and to recover from those merchants in the event of a dispute. In modern commerce, however, that argument has no empirical support. For one thing, the modern chargeback system allows the issuer to recover the funds promptly without regard to the merchant's location. If anything, the imbalance in litigation capabilities discussed in the previous section is likely to be exacerbated in remote transactions where consumers are likely to be incapable of effective recourse. That is not to say that consumers would not abuse such a rule when they deal with remote merchants. It is simply to recognize that there are dishonest merchants as well as dishonest consumers; that reputational constraints are unlikely to constrain either of them; and that as a class the honest merchants will be better situated to deal with the dishonest consumers than the honest consumers will be situated to deal with the dishonest merchants. As with much of this discussion, empirical information about the nature of chargeback claims would influence my views, but it is difficult to see how that information could be generated in a reliable and cost effective way.

At the same time, I also think there is much to be said for a small-dollar exclusion from the reversibility right, with a floor in the range of $ 50. The idea is that there are certain sales transactions in which the optimal rule certainly is to deny reversibility -- the transaction to purchase a newspaper or piece of fruit from a street vendor providing an obvious benchmark. In that context, it might be that claims to reverse payment would more commonly be abusive than in the context of more significant purchases, if only because it is difficult to imagine a legitimate basis for reversing payment in that context. At the same time, the relative burdens of costs and benefits are different in that context because the administrative costs of reversing payment and dealing with the chargeback are likely to be relatively fixed, while the benefits to the consumer -- the loss that the consumer otherwise would have borne if it could not reverse the payment -- are diminished. Thus, I am inclined to support a $ 50 floor for the reversibility right, parallel to the $ 50 floor in existing law for claims that transactions are not authorized.

One seeming inconsistency in my analysis is that I would define the universe of transactions also by reference to the particular payment system, including the major existing card-based systems but excluding cash and checks. I rest that aspect of the analysis on practical concerns, motivated in part by the desire to preserve some menu of reversibility options. At least in the United States, where non-cash payment systems have so penetrated the economy, a rule providing substantially lower protections for

the consumer in a cash transaction is unlikely to lead to a shift toward cash-only merchants. For the reasons summarized above, street merchants and casual restaurants aside, merchants in our economy rarely find it profitable to insist on cash as a payment medium. Also, and perhaps more importantly, it is difficult to imagine a practical system for involuntarily retracting cash payments: cash transactions obviously lack the network of relationships that leaves a payment path over which the consumer can retract the payment. To restate what should be obvious by now, that problem does not apply to debit cards because of the increasing parallelism of the systems for clearing debit and credit card transactions.

Checks are a harder problem, and thus a closer call. On the one hand, consumers that use checks to make purchases often use them in transactions of a size and type quite similar to the transactions in which they use credit cards, with the choice depending more on personal predilection than anything else. Thus, there is every reason to expect that consumers that purchase with checks would benefit as much from a right to retract payment as consumers that purchase with credit cards.

On the other hand, a rule permitting check purchasers to retract payments would be almost as complicated as a rule that benefited cash purchasers because it would require substantial revisions to Article 4 of the Uniform Commercial Code and Regulation CC. Perhaps more importantly, checks resemble cash in the sense that the path of a cleared check is not nearly so easily retraced as the path of a completed credit card transaction. The issuing bank in a credit card transaction has an all but immediate, almost cost-free, and usually certain mechanism to retract funds when it unwinds a credit card transaction. In contrast, whatever rights the law might grant, the bank on which a check is drawn often would have significant doubts about its ability to retract the funds through the system. Most obviously, it could recover the money only if the depositor's account contained sufficient funds to cover the retracted check. Because merchants generally leave the credit card system only upon insolvency, that is not likely to be a problem of similar significance in unwinding credit card transactions.

Moreover, even if it were practical to extend retraction rights into the checking system, it is not clear that such a rule would produce benefits to consumers that plausibly could justify the complexity of the necessary reforms. For one thing, the steadily diminishing level of retail check usage suggests that improvement of the system in this respect hardly justifies the complicating features that would be required. That is particularly true in light of the ready availability of the card-based payment system as an option for the "savvy" purchaser to whom this issue is important. Credit and debit cards have sufficiently penetrated the marketplace that almost any consumer can choose to use a card-based payment system. Again, my instinct is that, at least in our country, merchants would not respond to the increase of consumer protections for debit cards by refusing to take credit and debit cards. If those protections were a concern, the merchants already would be refusing to take credit cards. More specifically, if TILA protections were a significant concern for merchants, they would not be objecting to Visa and MasterCard policies that require them to accept debit cards. . . .

INTERNET TRANSACTIONS

The most prominent change in payments over the next decade surely will be the continuing shift of the market from face-to-face retail transactions to Internet transactions. From a market of truly

insignificant proportions five years ago to a trillion-dollar market in the next few years, the growth is nothing short of exponential.

Almost buried in the bustle of news stories about e-commerce is the question of how consumers will pay for their e-purchases. Presently, those transactions are paid for almost exclusively with credit cards. Thus, absent some change of infrastructure, those transactions might be thought to raise no questions of interest for the subject of this Essay.

That conclusion, however, would be too facile. As it happens, the credit card in its current form is not well suited for the broad run of transactions that are expected to populate the Internet in the years to come. Three concerns are salient. One is the privacy issue: credit card transactions result in the collection of a considerable body of valuable information by the issuing bank. Many observers worry that a shift of purchasing to the Internet will lead to a shift away from cash purchases toward credit card purchases and to a consequent increase in the ability of banks to collect and, more to the point, disseminate information about consumer purchasing power.

Second, because of its relatively high per-unit charges, the credit card transaction is not well suited to small "micro-transactions." Many observers believe that a significant market in the electronic commerce of the future will consist of the purchase and sale of individual pieces of information ranging from weather reports, to sports information, to music. If those transactions are priced on a per-unit basis and paid for contemporaneously, the credit card would not provide a workable payment device.

Third, the credit card as used on the Internet seems to be particularly susceptible to fraud, which increases the cost of those transactions significantly. The difficulty is that those transactions, like mail-order transactions, offer the merchant no credible mechanism for verifying the identity of the purported cardholder. Recognizing that problem, the card issuer in those transactions, unlike face-to-face transactions in which the card is "swiped," leaves the risk of unauthorized transactions on the merchant.

Because of the potential size of the Internet market, it should come as no surprise that considerable effort is being devoted to a response to those problems. The simplest response would be deployment of technology permitting the general acceptance of debit cards on the Internet. More ambitious are the projects attempting to develop a new electronic currency -- generally referred to as electronic money. Using technology closely related to stored-value cards -- and, ideally, compatible with them-- electronic money would allow consumers to pay merchants by transferring to them packages of electronic impulses (ecoins) that reflect value previously deposited with a reputable financial institution. Because the ecoins would not be traceable to a particular consumer, the bank would not be able to develop records of the consumer's transactions. Similarly, because the system would be entirely electronic, its per-transaction charges would be sufficiently low to accommodate microtransactions. Less technologically ambitious but more practical responses depend on aggregation of large numbers of transactions into a single billing event.

The credit card industry, of course, could overcome those problems as well. It could upgrade its processing system to lower its transaction charges so as to make credit cards practical for smaller

transactions. Issuers also could refrain from collecting and disseminating purchasing information about their customers to third parties. At least to date, however, I am aware of nothing that suggests the industry is moving in either of those directions. Furthermore, and perhaps most seriously in the long run, it is less clear what the industry could do to prevent the use of stolen credit card numbers in Internet transactions. Absent some definitive mechanism for tying the individual transmitting information to the merchant to a particular card account, that problem seems likely to remain. Thus, the likelihood of a large-scale electronic-money system seems greater here than in the face-to-face context discussed above.

Although the stated purposes for developing such a system strike me as entirely salutary, one obvious side effect under the existing legal regime would be to remove a large class of payment transactions from the protections granted by TILA to current Internet transactions. But that result is just as much a windfall to the payment operator here as it is to the debit card issuer discussed in the preceding sections. Accordingly, it might be appropriate to extend the charge-back rights described above to any Internet electronic payment system as well, even if that system diverges from current practice sufficiently to abandon the use of a card-based account.

There are no obvious technological difficulties in that approach. Although a payor-anonymous system might not provide the bank with records of the particular transactions of its customer, the customer that wishes to charge back a transaction need only forward to the bank the customer's record of the transaction from the customer's own computer. That record should include enough information to allow the bank to match the transaction to the transaction it cleared from the merchant. At that point, the electronic-money system would resemble the credit card system, with the issuer in possession of information that would enable it to retract funds previously forwarded in payment of the transaction. In sum, I doubt that it would be technologically difficult to include a charge-back option in an electronic-money system.

The biggest problem with that approach is that it would make it quite difficult in the electronic milieu for a merchant to insist on a practical payment option that is irreversible. As discussed above, I see considerable value in permitting merchants some flexibility in the type of payments that they are willing to accept. In my view, however, that problem is less serious in the Internet context. For one thing, it is clear that the absence of such an option is not a major problem at present. Internet commerce grows rapidly now with no signs of hindrance from the chargeback rights currently available to Internet purchasers.

I also am influenced here by the typical nature of Internet transactions, which at least at the present time are likely to involve relatively large purchases shipped remotely, a context in which the problem of leverage imbalance is likely to be particularly serious. A rule that does not, as a practical matter, permit irreversible payments is not in practice any different from the rule discussed above which permits merchants to insist on irreversible payments only if the merchants are willing to insist on cash for large purchases.

Finally, if a context appears in which a payment option of irreversibility would be important -- micropurchases of information, for example -- the existence of the transactions will afford an

opportunity for designing a rule that would accommodate such an option. It would be easy at that time, for example, for the appropriate regulatory authority, presumably the Federal Reserve, to adopt a transaction-bounded rule permitting merchants to make cash-like irreversible payments in appropriate circumstances.

It is difficult to fashion a payments policy for transactions that are only beginning to occur. Thus, my recommendations with respect to electronic payments in this section must be taken much more tentatively than my analogous recommendations in the previous part. Still, the discussion itself has value if only to pose the basic choice of whether payments in electronic transactions should be analyzed under rules that depend solely on the type of technology or under rules that also depend on the type of transaction. I hope my discussion illustrates the virtue of the latter course.

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## Ronald J. Mann, PAYMENT SYSTEMS AND OTHER FINANCIAL TRANSACTIONS (2d ed. 2003), pp. 157-166.

### Assignment 9: Automated Clearinghouse Payments

The check and its close relative, the debit card, are not [] the only methods for making payments to or from a consumer bank account. Those payments also can be made electronically, through what is known as the Automated Clearing House (ACH) network. Although the ACH payment is not a widely known device, it is in fact quite common. Indeed, a recent Federal Reserve study shows that during 2000 the ACH network cleared about 5.6 billion payments of an average of slightly more than $1000, for a total of about $5.7 trillion.

The ACH network is a nationwide computerized counterpart to the checking system, parallel to (but separate from) the networks used for transactions on credit cards or on debit (and ATM) cards. The network is used for electronic transfers between accounts at American financial institutions— most commonly for automated deposits of salaries and for automated payments of recurring bills (mortgages, car payments, and the like). Because the transfers are electronically initiated, they are governed by the EFTA and Regulation E to the extent that they involve consumer accounts. Regulation E, §205.3. To the extent that they involve transfers between business accounts instead of consumer accounts, they are governed by UCC Article 4A (related to large-scale wire transfers) rather than Regulation E. See UCC §4A-108 and comment (explaining that Article 4A does not apply to transactions that involve transfers to consumer accounts). Assignments 10-12 discuss Article 4A.

The network generally is governed by the Operating Rules issued by NACHA (formerly known as the National Automated Clearing House Association), a not-for-profit association of 36 regional clearinghouse associations. Those associations, in turn, are composed of the roughly 13,000 depositary institutions that participate in the network. The network also is closely associated with the Federal Reserve system, if only because (as described in more detail below) ACH payments generally are cleared through accounts at Federal Reserve banks and because communications to make payments on the ACH network are made over the communication system of the Federal Reserve.

To understand how those payments work, four topics are useful points of discussion: the basic terminology of ACH transfers, the mechanics of ACH entries, the various types of ACH entries, and issues related to finality, errors, and fraud.

#### A. The Basic Terminology of ACH Transfers

Transfers using any of the payment systems discussed in the previous assignment begin with a request from the payor, in the form of an instruction that the payee can use to collect funds from the payor's financial institution. The ACH network, however, is more flexible, contemplating transactions in which the initial instruction can come either from the payor or from the payee. That instruction—an "entry" in NACHA terminology, NACHA Rules §14.1.24—can be either a credit entry initiated by the

payor (asking the payor's institution to credit the account of the recipient) or a debit entry initiated by the payee (asking the payee's institution to debit the account of the recipient).

In the terminology of the NACHA rules, each ACH transfer involves (at least) five participants, as follows:

*Originator*: The party that makes the entry (or communication) that initiates the transaction. NACHA Rules §14.1.37. In a credit transfer, that is the payor; in a debit transfer, that is the payee.

*Originating Depository Financial Institution (or ODFI):* The financial institution of the Originator. NACHA Rules §14.1.35. Normally, this is the location of the account from which payment is to be made in a credit entry or the account to which payment is to be made in a debit entry.

*Automated Clearing House Operator or ACH Operator:* The party that carries communications (and funds) from the ODFI to the RDFI (described below). NACHA Rules §14.1.1. Except in the New York Federal Reserve District, this normally is the local Federal Reserve bank. In transfers between different Federal Reserve districts, there will be an Originating ACH Operator (normally the Federal Reserve bank in the district in which the ODFI is located) and a Receiving ACH Operator (normally the Federal Reserve bank in the district in which the RDFI is located).

*Receiving Depositary Financial Institution (or RDFI):* The financial institution of the Recipient. NACHA Rules §14.1.49. Normally, this is the location of the account to which payment is to be made in a credit entry or the account from which payment is to be made in a debit entry.

*Receiver*: The party to which the entry is directed. NACHA Rules §14.1.47. In a credit transfer, that is the payee; in a debit transfer, that is the payor. . .

**B. The Mechanics of ACH Entries**

The ACH network is a computerized alternative to the checking system. Thus, it relies entirely on electronic messages to convey the information that paper checks convey in the conventional checking system. The process of an ACH transfer starts with a message from the Originator to the ODFI. That message—an entry for each transaction—is likely to be sent to the ODFI as part of a large volume of messages (a "batch"), which the ODFI will process in due course. (The use of "batch" processing—as opposed to realtime processing of each transaction that the ODFI creates—is a relic of the relatively primitive state of computer technology at the time the ACH network was designed.) Each entry is in a standardized format that defines the type of entry and includes the specific information necessary for the ODFI to process the particular type of entry. (The next section of this assignment includes more information about the various types of specialized entries that are possible.)

When the ODFI receives a batch of data, it examines the data to ensure that all of the data are in a comprehensible format so that the ODFI can process the requested transactions. It directly processes entries for which it is the RDFI (on-us entries). It then merges the remaining valid entries with data

from other originators and transmits the data to its ACH Operator. When it transmits the data to the ACH Operator, it binds itself to pay the ACH Operator for all credit transfers included in the data (with the actual funds to be taken from the Federal Reserve account of the ODFI, NACHA Rules §82). So, for example, if an employer processed the direct-deposit portion of its payroll through the ACH system, the employer (as Originator) would send a file of credit entries to its bank (the ODFI). That bank would charge the employer's account for the total amount of the payroll, keep data for employees that were its own customers, and send the remaining data on to the local Federal Reserve bank (as the ACH Operator).

The ACH Operator engages in a similar process. It then sorts the transactions by region (to determine the appropriate Receiving ACH Operator). It retains transactions for which it is the Receiving ACH Operator, but transmits to the appropriate entity all transactions from other regions (for which some other entity would be the Receiving ACH Operator). At the same time, it is receiving transactions from other ACH Operators for which it is the Receiving ACH Operator. It sorts all of those transactions—that is, both the intraregion and interregion transactions for which it is the Receiving ACH Operator—to produce separate batches of entries for each of the local institutions. Then it transmits to each of those institutions (the respective RDFI's) a file reflecting the transactions that it has received for that institution. In our employer hypothetical, the Receiving ACH Operator would send back to all of the banks in its district the data for all of the employees that bank in the same Federal Reserve district as their employer. Data for remote employees would be sent to the Federal Reserve bank in the relevant district.

Finally, the RDFI's sort the data by account, post the transactions to the respective accounts, and provide the relevant notice to the holders of the accounts (the respective Receivers for the various entries). Thus, continuing our example, each of those banks would credit the employees with the appropriate funds. When the Receiver receives the funds for credit entries (on the settlement date of those entries), it must give the Originator credit for the payment as of that date. NACHA Rules §4.4.4. Thus, for example, if an Originator makes an ACH payment to its electric company to pay its electric bill, the electric company as Receiver must give its customer, the Originator, credit for the payment as of the settlement date of the payment, without regard to the electric company's internal procedures for processing payments.

Because many of the payments made by ACH transfer fulfill obligations to make payments on a specific date (such as the obligation of an employer to pay its employees), the system uses a "value-dating" mechanism. With that mechanism, each entry specifies a settlement date, on which the funds are to be transferred among the relevant accounts. The funds transfers are made on that date through net entries on designated Federal Reserve bank accounts of the participating depositary institutions. The entries also normally are posted on that same date to the accounts of the Originator and Receiver. The principal exception is for smaller institutions that have less expeditious methods of communicating with their ACH Operators; in that case, the RDFI may not receive information about the transaction in time to credit the account of the Receiver until a few days after the settlement date.

A final question is how far in advance a payment can be entered. Under rules promulgated by the Federal Reserve, a debit entry must be transmitted by the ODFI the day before the settlement date; a credit transaction typically can be transmitted either on the day before the settlement date or two days before the settlement date. That rule has several ramifications. For one thing, it means that financial institutions cannot send entries long periods in advance and expect the receiving ACH Operators and financial institutions to hold onto them and process them on the appropriate day. More important, it effectively means that ACH entries cannot (like debit cards) be used to provide immediate payment in retail transactions (which might be desirable for POS or WEB entries, both discussed below) because a transaction will not in any event settle until the business day after the date on which it is transmitted. As NACHA continues in its efforts to make ACH a payment system of general desirability, there may be pressure to move (as the wire transfer systems discussed in the next chapter have done) to systems that permit more contemporaneous payment.

### C. Types of ACH Entries

Although ACH transfers are used in contexts that involve only businesses, our focus here is on their use for payments to or from consumers. In that context, the typical and most common ACH transfer is a credit entry sending payment from an employer to an employee (a "direct deposit" in common parlance). Probably the second most common ACH transfer is a preauthorized debit entry, in which a consumer agrees that a payee periodically can deduct funds to pay a bill. For example, it is common for mortgage payments to be made by a preauthorized ACH transaction in which the lender is the originator and the homeowner is the receiver.

There also are a variety of specialized types of ACH entries used in particular contexts. Most of these have been created recently, as NACHA struggles to come up with products that allow it to retain (or increase) its market share in a vigorous competition against checks, credit cards, and debit cards. For example, several of the new products are designed to remedy a variety of common problems in the check-collection process. For example, if a check is lost in the course of processing, it often is possible for the depositary bank to collect the check by sending a "destroyed check entry" (an XCK entry in the terminology of the NACHA Rules) to the payor bank. NACHA Rules §§2.7.1, 141.66 Similarly, if a check bounces, a depositary bank that wants to make a second attempt at collection can do so by the expeditious method of submitting an ACH entry called an RCK entry (instead of sending the physical check a second time through the normal channels for check processing). NACHA Rules §§2.8, 13.1.45 (discussing those entries). You will notice that in the limited context of those problems, the NACHA Rules permit debit entries against consumer accounts without the prior consent of the Receiver. NACHA Rules §2.1.3.

There also are three specialized ACH entries that merchants use to collect payments for sales. The first of these is the point of purchase (POP) check conversion entry. In that transaction, the consumer gives the merchant a paper check, but the merchant does not use the check to obtain payment. Instead (using a special terminal at the point of sale), the merchant takes the information from the MICR line of the check and with that information initiates a POP ACH entry in the amount of the purchase. NACHA Rules §§3.7, 14.1.42. Although that transaction was designed only in the late 1990s, it has

grown quite rapidly and by 2001 was being used for about 25 million transactions a year. A similar transaction permits a merchant that receives a check in the mail to use a PPD (abbreviation for postpaid) ACH entry instead of depositing the check in the bank. NACHA Rules §§3.6, 14.1.44. Also, the TEL entry can be used in transactions in which the merchant receives authorization for a payment by telephone. NACHA Rules §§2.1.5, 14.1.57. Those transactions, of course, pose the same potential for fraud and other difficulties as the telephone transactions discussed in Assignment 4.

Finally, the most recent major new type of ACH entry is the WEB entry, designed for Internet purchases. NACHA Rules §§2.10, 14.1.65. NACHA hopes that the WEB entry will become a major competitor to the credit card, which currently is used in more than 90 percent of retail Internet transactions. As I write, however, it is much too early to tell whether it will succeed. Among other things, the WEB entry can become important only if NACHA can persuade a sufficient number of merchants to deploy the technology prominently on the shopping-cart pages of their Web sites and if consumers choose to use that option with substantial frequency.

### D. Finality, Fraud, and Error in ACH Transfers

Because ACH transfers are governed by NACHA Rules, the obligations of the parties to those transactions are generally determined by those rules. Given the close parallel between those transactions and payments made by check, you should consider as you study those obligations the extent to which the privately designed NACHA Rules depart from the legislative rules that the UCC establishes for check transactions. This section organizes those topics around a discussion of two basic problems: the finality of an ACH transfer and fraudulent or erroneous ACH transfers.

#### 1. Finality

The first topic is finality: the possibility that an entry sent forth by the Originator in fact will not result in payment. With respect to credit entries, finality has two aspects: the point at which the RDFI loses its right to return the item (the analogue to final payment of a check) and the point at which the Originator and ODFI lose their right to retract the item (the analogue to losing the right to stop payment on a check). On the first point, the ACH system (like the checking system) imposes no general substantive constraint on the right of the RDFI to reject any entry. See NACHA Rules §6.1.1 (permitting return "for any reason"). The most important constraint (parallel to the midnight deadline in Article 4) is that the return must be made in time to be received by the ODFI by the opening of business on the second banking day following the settlement date. NACHA Rules §6.1.2; see NACHA Rules §14.1.12 (defining banking day). Thus, if the RDFI wishes to return a credit entry that was to be paid on Wednesday March 31, it must get the return back to the ODFI by Friday April 2. As long as it returns the entry within that time period, it need not have any particular reason for the return.

Of course, it is not as easy to see why an RDFI would reject ACH entries as frequently as payor banks would reject checks drawn on them. For one thing, credit entries are transmissions of funds to the RDFI, not requests that the RDFI disburse funds. Accordingly, the customers of the RDFI have little reason to complain of those entries. Only if the entries are debit entries is there a possibility of rejection for insufficient funds. The rules above permit such a rejection easily. What they do not permit,

however—and here they differ from the credit-card system, for example—is any later rejection for reasons such as dissatisfaction with the underlying performance by the Originator of a debit entry.

From the other side, the ACH system has a much more limited right of retraction and stopping payment than the checking and credit-card systems that we have discussed earlier. Specifically, except for the narrow rules discussed below related to errors, neither the Originator nor the ODFI has any right to stop or recall an entry once it has been received by the Originating ACH Operator. NACHA Rules §8.1.

With respect to debit entries, the right to stop payment is much different, generally resembling the rules in Article 4 for stopping payment on checks. Thus, the Receiver of a debit entry can stop payment on the entry by providing notice to the RDFI "at such time and in such manner as to allow the RDFI a reasonable opportunity to act upon the stop payment order before acting on the debit entry." NACHA Rules §8.5; compare UCC §4-403(a) (similar rule for stopping payment on a check). Debit entries against consumer accounts are treated slightly differently. Specifically, although the same rule applies to a variety of specialized debit entries (RCK, PPD, POP, WEB, and TEL entries, all discussed above), a consumer that wants to stop payment on a "normal" entry must provide notice to the RDFI three banking days before the scheduled transfer date. NACHA Rules §8.4. The only substantial right to stop payment is a right granted to a consumer that owns an account against which a debit entry is being made. That consumer can stop payment by providing notice to the RDFI three banking days before the date on which the entry is to be executed against the consumer's account. NACHA Rules §8.4.

2. Fraud and Error in ACH Transfers

Although the NACHA Rules discussed above create a payment that is final in a relatively firm way, they do include a variety of procedures to deal with innocent or fraudulent mistakes in ACH entries. The simplest preventative is a procedure that allows the Originator to test the efficacy of an ACH entry before actually sending the entry. To use that procedure, the Originator sends a "prenotification" through the ODFI to the RDFI, describing the entries that the Originator plans to initiate with regard to a Receiver's account. After sending a prenotification, the Originator must wait six banking days before it can initiate entries to the Receiver's account. During that period, the RDFI has an opportunity to transmit a "Notification of Change" (NOC). If the ODFI receives an NOC, it can initiate the entries in question only if it complies with the NOC. NACHA Rules §§2.3, 6.3.

The NACHA Rules recognize that one of the most typical problems of all electronic systems is the problem of duplicate files or entries—correct transmissions that are sent more than once. The NACHA Rules include specific rules that permit the ODFI to reverse such transactions, whether they are whole files (batches of entries) or individual entries. Under the NACHA Rules, the ODFI can reverse an entire file if it acts within five banking days of the settlement date of the file in question, but no later than 24 hours after discovery of the duplication or other error. NACHA Rules §2.4.2. Any such request obligates the reversing ODFI to indemnify all participating financial institutions and ACH Operators for all losses related to their compliance with either the original or the reversing instructions. NACHA Rules §2.4.5.

By contrast, if an Originator wishes to reverse a single entry (rather than an entire file of entries), the Originator must notify the Receiver not later than the settlement date for the entry claimed to be erroneous. NACHA Rules §2.5.1. Thus, the Originator has no general right to retract an entry once the settlement date has passed. Moreover, even if it acts by the settlement date, it must, as in the case of reversing an entire file, provide a broad indemnity to the relevant financial institutions and ACH Operators. NACHA Rules §2.5.2.

The biggest problem among erroneous or fraudulent transmissions is not an erroneous credit entry—in which an Originator mistakenly sends funds to a third party—if only because the party most likely to be inconvenienced is the party that has erroneously sent the transmissions. The more serious problem occurs when a debit entry is sent that withdraws funds from the account of a Receiver that has not authorized such a transaction. In that context, the NACHA Rules grant consumers a specific right to have their account recredited. The Receiver that wants to get the funds back from an allegedly erroneous debit entry must act within 15 calendar days of the date that the RDFI sends a statement showing the debit and must provide an affidavit "in the form required by the RDFI" declaring that the entry was not in fact authorized. NACHA Rules §§8.6.1, 8.6.2. When the consumer Receiver complies with those requirements, the RDFI must credit the consumer' s account "promptly." NACHA Rules §8.6.1. See also NACHA Rules §§8.6.2, 8.6.3 (requiring an RDFI to recredit a consumer's account promptly if the RDFI honors an RCK or POP entry despite a proper stop-payment request from the consumer).

**Problems**

1. Suppose that your bill for Internet service at your home each month is paid by an automatic deduction from your bank account. You agreed to this when you signed up for Internet service with your Internet service provider (ISP), and at that time, you provided to your ISP information about your bank so that the ISP could arrange for the payments.

a. Determine what type of ACH entry (credit entry or debit entry) is most likely to be involved. [NACHA Rules §14.1.24.]

b. Assuming that you reside in Chicago and that the ISP is located in Washington State (near the Seattle Federal Reserve Bank), identify the most likely parties to the transaction and the roles they would play under applicable NACHA Rules. [NACHA Rules §§14.1.34, 14.1.35, 14.1.37, 14.1.47, 14.1.48, 14.1.49.]

c. Assuming that the next payment is due on Monday April 1, what would you need to do to cancel that payment, and what is the latest date on which you could act to do so in a timely manner? [NACHA Rules §§8.4, 14.1.12.]

2. Suppose that you pay your credit-card bill through an Internet bill-payment service offered by your bank, through which you can direct your financial institution to pay bills using ACH transfers. Using that service, you direct a transfer to pay a $7,000 credit-card bill in its entirety. Suppose that you

change your mind the next day. Is there anything that you can do to prevent the payment from being made? [NACHA Rules §§2.5, 8.1, 8.3.]

3. Using the same payment system discussed in Problem 9.2, you pay your monthly mortgage payment. You can see from the system that it has made an ACH transfer with a settlement date of April 1 (the date on which your mortgage payment is due). Still, you receive a notice in the mail a week later from your mortgage company advising you that it has imposed a $10 late charge because the payment in fact had not been processed until April 2. The notice advises you that your mortgage company takes two days to process ACH payments and thus that all mortgage payments made by ACH must be transmitted two days in advance of the date on which the mortgage payment is due. Is there anything that you can do about this? [NACHA Rules §4.4.4.]

4. Your bank mistakenly honors a check that is not properly payable from your bank account, which has the effect of depleting the funds in your account. As a result, the regularly scheduled debit entry to pay your car payment is returned unpaid by your bank. The car lender at that point repossesses your car, which causes you to incur a variety of expenses. Is your bank liable for those losses? [UCC §§4-402, 4-104(a)(9), 3-103; NACHA Rules §§6.1, 14.1.24.]

5. When you check your bank statement this month, suppose that you find on it a debit entry for $2,100 to cover a mortgage payment to Bank of America. The reason that this troubles you is that you do not own a home and thus do not regularly make mortgage payments. The problem that this presents for you is that the loss of the $2,100 from your account leaves it seriously depleted and thus limits your ability to cover your current bills.

a. How quickly must your bank return the $2,100 to your account? [NACHA Rules §8.6; EFTA §908.]

b After the bank returns the money, will it be able to recover from any other party? [NACHA Rules §2.2.1, 2.2.1.1.] Would your answer be different if the funds had been stolen by check? [UCC §4-208.]

6. Your old friend Bill Robertson comes to see you. He wants to know what advantages and disadvantages he would face in accepting ACH payments at his grocery store (presumably POP entries), as compared to checks and debit cards. What do you say?

# NACHA 2005 OPERATING RULES (selected provisions)

**ARTICLE ONE -- GENERAL**

**SECTION 1.1 Application of Rules**

These rules apply to all entries and entry data transmitted through one or more ACH Operators, except where superseded by the operating rules of an Association by which an ODFI and RDFI have agreed to be bound. Unless a federal government entity or agency has expressly agreed to be bound by these rules, the rules do not apply to entries initiated by that entity or agency.

**SECTION 1.2 Compliance With Rules**

Each Participating DFI agrees to comply with these rules and warrants that it is legally able to comply with all applicable requirements of these rules.

**SUBSECTION 1.2.1 Audits**

Each Participating DFI shall conduct or have conducted audits of its compliance with these rules in accordance with Appendix Eight (Rule Compliance Audit Requirements).

**SUBSECTION 1.2.2 Compensation**

The settlement of claims for compensation between Participating DFIs may be governed by the procedures contained in Appendix Nine (Compensation Rules).

**SUBSECTION 1.2.3 Arbitration**

The settlement of disputes arising under these rules between Participating DFIs may be governed by the procedures contained in Appendix Ten (Arbitration Procedures).

**SUBSECTION 1.2.4 Rules Enforcement**

Each Participating DFI is subject to, and agrees to comply with, the rules enforcement procedures contained in Appendix Eleven (Rules Enforcement).

**SECTION 1.3 Excused Delay**

Delay by a Participating DFI or ACH Operator beyond the time limits prescribed or permitted by these rules is excused if the delay was caused by the interruption of communication or computer facilities or the suspension of payments by another Participating DFI or ACH Operator, and the delay is beyond the reasonable control of the Participating DFI or ACH Operator. This may include, but is not limited to, delays caused by war or act of God, provided that the Participating DFI or ACH Operator exercises such diligence as the circumstances require. Delay caused by the general failure of a Participating DFI's computer facilities or other equipment does not constitute an excused delay and should be addressed within the Participating DFI's contingency planning policies.

**SECTION 1.4 Days on Which Institution or Facility is Closed**

Any entry or entry data required by these rules to be made available or transmitted by a Participating DFI or ACH Operator on or by a day that is not a banking day for both the sending party (sending DFI or sending ACH Operator) and receiving party (receiving DFI or receiving ACH Operator) may be made available or transmitted on the next day that is a banking day for both the sending and receiving parties. This rule only applies where an entry will be received on the same day it is transmitted.

**SECTION 1.5 Transmission of ACH Information Via Unsecured Electronic Networks**

Any banking information, including, but not limited to, an Entry, Entry Data, a routing number, an account number, and a PIN or other identification symbol, that is transmitted or exchanged between a Receiver and an Originator, an Originator and an ODFI, an ODFI and an ACH Operator, an ACH Operator and an RDFI, or an Originator, ODFI, RDFI, or ACH Operator and a Third- Party Service Provider, via an Unsecured Electronic Network, must, prior to the key-entry and through transmission of any banking

information, (1) be encrypted using a commercially reasonable security technology that, at a minimum, is equivalent to 128-bit RC4 encryption technology, or (2) be transmitted via a secure session utilizing a commercially reasonable security technology that provides a level of security that, at a minimum, is equivalent to 128-bit RC4 encryption technology.

Transmissions or exchanges of banking information over an Unsecured Electronic Network by means of voice or keypad inputs from a wireline or wireless telephone are not subject to this Section 1.5 unless the telephone is used to access the Internet.

**SECTION 1.6 Records**

**SUBSECTION 1.6.1 Records of Entries**

Each Participating DFI must retain records of all entries, including return and adjustment entries, transmitted from or to an ACH Operator. These records must be retained for six years from the date the entry was transmitted. The Participating DFI must, if requested by its customer, or any other Participating DFI or ACH Operator which originated, transmitted, or received the entry, provide the requester with a printout or reproduction of the information relating to the entry. A Participating DFI may impose a reasonable charge for the provision of such information.

**SECTION 1.7 Choice of Law**

These rules and the rights and obligations of a party with regard to a credit entry subject to Article 4A shall be construed in accordance with and governed by the laws of the State of New York, unless otherwise provided in an agreement of such party.

**SECTION 2.2 Warranties and Liabilities of Originating Depository Financial Institutions**

**SUBSECTION 2.2.1 Warranties**

Each ODFI sending an entry warrants the following to each RDFI, ACH Operator, and Association:

**SUBSECTION 2.2.1.1 Authorization by Originator and Receiver**

Except in the case of XCK entries initiated pursuant to section 2.7 (Destroyed Check Entries), each entry transmitted by the ODFI to an ACH Operator is in accordance with proper authorization provided by the Originator and the Receiver.

**SUBSECTION 2.2.1.2 Timeliness of Entries**

Each credit entry is timely, and each debit entry is for an amount which on the Settlement Date will be due and owing to the Originator from the Receiver, is for a sum specified by the Receiver to be paid to the Originator, or is to correct a previously transmitted erroneous credit entry.

**SUBSECTION 2.2.1.3 Compliance With Other Requirements**

All other applicable requirements of section 2.1 (Prerequisites to Origination) concerning the authorization and entry have been satisfied, the entry has not been reinitiated in violation of section 2.12 (Reinitiation of Returned Entries by Originators), and the entry otherwise complies with these rules.

**SUBSECTION 2.2.1.4 Revocation of Authorization**

At the time the entry is transmitted to an Originating ACH Operator, the Originator's authorization has not been revoked, the agreements required by subsection 2.1.1 (Originator Authorization and Agreement) concerning the entry have not been terminated, and neither the ODFI, any Third-Party Sender, nor the Originator has actual knowledge of the revocation of the Receiver's authorization or of the termination of

the arrangement between the RDFI and the Receiver concerning the entry.

**SUBSECTION 2.2.1.5 Termination of Authorization by Operation of Law**

At the time the entry is processed by an RDFI, the authorization for that entry has not been terminated, in whole or in part, by operation of law. This subsection shall not apply if the RDFI has actual knowledge of the circumstances giving rise to such termination at the time it processes the entry and the ODFI does not have such actual knowledge.

**SUBSECTION 2.2.2 Limitation**

Notwithstanding anything in these rules to the contrary, the warranties contained within subsection 2.2.1 (Warranties) and the requirements of subsection 2.1.2 (Receiver Authorization and Agreement) do not apply to the goods or services to which the entry relates.

**SUBSECTION 2.2.3 Liability for Breach of Warranty**

Each ODFI breaching any of the preceding warranties shall indemnify every RDFI, ACH Operator, and Association from and against any and all claim, demand, loss, liability, or expense, including attorneys' fees and costs, that result directly or indirectly from the breach of warranty or the debiting or crediting of the entry to the Receiver's account. This indemnity includes, without limitation, any claim, demand, loss, liability, or expense based on the ground that the debiting of an entry to an account resulted, either directly or indirectly, in the return of one or more items or entries of the Receiver due to insufficient funds. This indemnity also includes, in the case of a Consumer Account, without limitation, any claim, demand, loss, liability, or expense based on the ground that the failure of the ODFI to comply with any provision of these rules resulted, either directly or indirectly, in the violation by an RDFI of the Federal Electronic Fund Transfer Act or Federal Reserve Board Regulation E.

**SECTION 2.5 Reversing Entries**

**SUBSECTION 2.5.1 General Rule**

An Originator may initiate an entry (referred to as a "reversing entry") to correct an erroneous credit or debit entry previously initiated to a Receiver's account. The reversing entry must be transmitted to the Receiving ACH Operator in such time as to be transmitted or made available to the RDFI by midnight of the fifth banking day following the Settlement Date of the erroneous entry. For this section 2.5 only, an erroneous entry is defined as an entry that (1) is a duplicate of an entry previously initiated by the Originator or ODFI; (2) orders payment to or from a Receiver not intended to be credited or debited by the Originator; or (3) orders payment in a dollar amount different than was intended by the Originator. The Originator must notify the Receiver of the reversing entry and the reason for the reversing entry no later than the Settlement Date of the reversing entry.

**SUBSECTION 2.5.2 Indemnification**

Each ODFI that initiates a reversing entry shall indemnify every Participating DFI, ACH Operator, and Association from and against any and all claim, demand, loss, liability, or expense, including attorneys' fees and costs, that result directly or indirectly from the debiting or crediting of the reversing entry to the Receiver's account. Each ODFI also shall indemnify every RDFI, ACH Operator, and Association from and against any and all claim, demand, loss, liability, or expense, including attorneys' fees and costs, that result directly or indirectly from the crediting or debiting of a reversing entry initiated by an Originator through the ODFI.

**SUBSECTION 2.5.3 Inapplicable Provisions**

For a reversing entry complying with the requirements of this section 2.5, the provisions of sections 2.1.2 (Receiver Authorization and Agreement), 2.2.1.1 (Authorization by Originator and Receiver), 2.2.1.4 (Revocation of Authorization), 2.2.1.5 (Termination of Authorization by Operation of Law), and 3.4 (Consumer Accounts -- Notice by Originator to Receiver of Variable Debits) do not apply.

## ARTICLE FOUR - RECEIPT OF ENTRIES

### SECTION 4.1 General Rights and Obligations of RDFI

#### SUBSECTION 4.1.1 Right to Information Regarding Entries

An RDFI may request, in writing, that an ODFI provide a copy of the Receiver's authorization for any entries other than CBR entries, CCD entries, CTX credit entries, and XCK debit entries. Upon receipt of the RDFI's written request, the ODFI must obtain the original or a copy of the Receiver's authorization from the Originator in accordance with Section 3.12 (Record of Authorization) and provide it to the RDFI within ten banking days. An ODFI must provide such authorization without charge. The RDFI must not require the Originator to provide any other information concerning the Receiver or any entry to be initiated by the Originator to the Receiver's account. This subsection 4.1.1 does not apply to SHR or MTE entries if the ODFI and RDFI are parties to an agreement (other than these rules) for the provision of services relating to SHR or MTE entries. For ARC entries, the authorization shall consist of a copy of the notice provided under subsection 2.1.4 (Notification for Accounts Receivable Entries) and a copy of the Receiver's source document. The copy of the source document must indicate that it is a copy on its face. For RCK entries, the authorization shall consist of a copy of the notice provided under subsection 2.1.5 (Notification for Re-presented Check Entries) and a copy of the item to which the RCK entry relates.

#### SUBSECTION 4.1.2 Obligation to Verify Prenotification

If a prenotification has been initiated by an Originator, the RDFI receiving the prenotification must verify that the account number contained in the prenotification is for a valid account. If the RDFI finds that a prenotification does not contain a valid account number, or is otherwise erroneous or unprocessable, it must reject the prenotification and transmit a return entry complying with the requirements of Article Six (Return, Adjustment, Correction, and Acknowledgment of Entries and Entry Information) and Appendix Five (Return Entries).

#### SUBSECTION 4.1.3 Obligation to Accept Entries

Subject to its right to return or reject entries under these rules, an RDFI must accept credit, debit, and zero dollar entries that comply with these rules and are received with respect to any account maintained with that RDFI. The RDFI also must accept prenotifications that comply with the provisions of these rules relating to prenotifications.

#### SUBSECTION 4.1.4 Reliance on Account Numbers for Posting of Entries

If the account number and the name of the Receiver contained in an entry do not relate to the same account, the RDFI may rely solely on the account number contained in the entry for purposes of posting the entry to the Receiver's account.

### SECTION 4.2 Warranties of Receiving Depository Financial Institutions

Each RDFI warrants to each ODFI, ACH Operator, and Association that it has the power under applicable law to receive entries as provided in these rules and to comply with the requirements of these rules concerning RDFIs and Participating DFIs. Each RDFI also warrants that the RDFI and any third-party service provider that has acted on behalf of the RDFI with regard to the entry are in compliance with the audit requirements set forth in Appendix Eight (Rule Compliance Audit Requirements), which provides for an annual audit of compliance with these rules. In addition to the other warranties contained within these rules, each RDFI receiving an RCK entry will (a) display the descriptive information contained in the Entry on the relevant periodic statement sent to the Receiver by the RDFI; and (b) accord the Receiver the same rights with respect to the RCK entry as are provided for items under Revised Article 4 of the 1990 Official Text of the Uniform Commercial Code, except as otherwise provided for within the RDFI's agreement with the Receiver. Any RDFI

breaching any warranty under this section 4.2 shall indemnify each ODFI, ACH Operator, and Association from and against any and all claim, demand, loss, liability, or expense, including attorneys' fees and costs, resulting directly or indirectly from the breach of warranty.

**SECTION 4.3 Receipt and Availability of Entries**

An entry or entry data is deemed to be received by an RDFI on the banking day on which the entry or entry data is made available to it or to a Receiving Point used by the RDFI. An entry or entry data is made available to an RDFI or its Receiving Point when the entry or entry data is processed by the RDFI's ACH Operator and is ready for distribution.

**SECTION 4.4 Availability of Entries and Entry Information, Crediting and Debiting of Entries**

**SUBSECTION 4.4.1 Availability of Credit Entries to Receivers**

Subject to its right to return or reject entries in accordance with these rules, each RDFI must make the amount of each credit entry received from its ACH Operator available to the Receiver for withdrawal or cash withdrawal no later than the Settlement Date of the entry, with the following exception. Each PPD credit entry that is made available to an RDFI by its ACH Operator by 5:00 p.m. (RDFI's local time) on the banking day prior to the Settlement Date must be made available to the Receiver for withdrawal or cash withdrawal at the opening of business on the Settlement Date. For purposes of the preceding sentence, opening of business is defined as the later of 9:00 a.m. (RDFI's local time) or the time the RDFI's teller facilities (including ATMs) are available for customer account withdrawals.

**SUBSECTION 4.4.2 Time of Debiting of Entries**

An RDFI must not debit the amount of any entry to a Receiver's account prior to the Settlement Date of the entry, even if the effective entry date of the entry is different from the Settlement Date of the entry.

**SUBSECTION 4.4.3 Provision of Payment-Related Information to Receiver**

Upon the request of the Receiver, an RDFI must provide to its Receiver all Payment-Related Information contained within the Addenda Records transmitted with CCD, CIE, and CTX entries. The RDFI must provide this information to its Receiver by the opening of business on the second banking day following the Settlement Date of the entry.

**SUBSECTION 4.4.4 Crediting of Originators' Accounts by Receiver**

A Receiver must credit the Originator with the amount of an entry credited to the Receiver's account as of the Settlement Date. The Receiver shall have a reasonable period of time after the entry is credited to the Receiver's account to post the amount of the credit to the Originator's account or return the entry to the RDFI. For purposes of this section, a Receiver shall be considered to act within a reasonable period of time if the Receiver posts the credit or returns the entry no later than the time at which the Receiver would usually complete the process of posting credits resulting from payments received to its customers' accounts or returning these payments. A Receiver that returns an entry according to the requirements of this subsection 4.4.4 is not considered to have accepted the entry. This subsection 4.4.4 does not apply to MTE, POS, PPD, or SHR entries.

**SUBSECTION 4.4.5 Rights of Receiver Upon Unauthorized Debit to Its Account**

A Receiver or other person whose account is debited by an entry which is, in whole or in part, not authorized by such person shall have rights, including the right to have the account recredited as provided by law or agreement. Except as provided for in subsection 8.6.7 (Waiver of Right to Recredit), these rules shall not provide for or

**SUBSECTION 4.4.6 Reliance on Standard Entry Class Codes**

An RDFI may consider an entry containing a Standard Entry Class Code specified in Appendix Two (ACH Record Format Specifications) as

complying with the requirements of these rules for that type of entry.

**SUBSECTION 4.4.7 Reimbursement of RDFI**

For a credit entry subject to Article 4A, credit given to the Receiver by the RDFI as provided in subsection 4.4.1 (Availability of Credit Entries to Receivers) is provisional until the RDFI has received final settlement through a Federal Reserve Bank or has otherwise received payment as provided in Section 4A-403(a) of Article 4A. If such settlement or payment is not received, the RDFI is entitled to a refund from the Receiver of the amount credited, and the Originator is considered not to have paid the Receiver the amount of the entry. This subsection applies only if the Receiver has agreed to be bound by the rules contained in this subsection 4.4.7.

**SECTION 4.5 Periodic Statements**

An RDFI must send or make available to each of its Receivers information concerning each credit and debit entry to a Consumer Account of the Receiver in accordance with Appendix Four (Minimum Description Standards). In the case of CIE entries, this requirement and the requirements of Appendix Four apply to the ODFI for each credit entry debited to a Consumer Account of the Originator.

**SECTION 4.6 Notice to Receiver**

An RDFI is not required to notify a Receiver of receipt of an entry to its account unless otherwise provided for in an agreement between the RDFI and Receiver or required by a federal or state statute or regulation which cannot be varied by these rules or by agreement of the parties.

**SECTION 4.7 Release of Information**

Each RDFI agrees that each ACH Operator may release to the National Association data regarding ACH return entries transmitted to or by the RDFI.

**SECTION 4.8 Liability of RDFI for Benefit Payments**

**SUBSECTION 4.8.1 Liability of RDFI**

If a Receiver has died and the Receiver's right to receive one or more pension, annuity, or other benefit payments by PPD entry has terminated before the receipt by the RDFI of one or more credit entries to the Receiver's account representing those payments, the RDFI may be liable to the Originator for the amount of those entries credited to the Receiver's account if neither the Receiver's estate nor any other holder of the account is entitled to the payments. The liability an RDFI would incur under this subsection 4.8.1 is limited as provided in this section 4.8.

**SUBSECTION 4.8.2 Amount of RDFI Liability**

An RDFI's liability under this section 4.8 shall be the lesser of (1) the amount of any payments to which the Receiver was not entitled, or (2) the amount in the Receiver's account at the time the RDFI receives (i) a reclamation entry initiated by the ODFI pursuant to section 2.6 (Reclamation Entries) and not returned by the RDFI or (ii) a written demand for payment from the ODFI or Originator pursuant to subsections 4.8.3 (Demand for Payment) and 4.8.4 (Timing) and has a reasonable opportunity to act upon such demand. A claim or demand by an Originator (or ODFI on the Originator's behalf) will be subordinate to claims or potential claims of the United States Government under 31 C.F.R. Part 210. The Originator must reimburse the RDFI for any payments made to the Originator pursuant to this section 4.8 that are subject to a subsequent claim of the United States Government under 31 C.F.R. Part 210.

**SUBSECTION 4.8.3 Demand for Payment**

An RDFI will have no liability under this section 4.8 unless and until it receives (1) a reclamation entry initiated by the ODFI pursuant to section 2.6 (Reclamation Entries) and not returned by the RDFI, or (2) a written demand for payment from the ODFI or Originator. The reclamation entry or written demand for payment must identify the name of the Receiver, the account at the RDFI credited on the Receiver's behalf, and the exact amount and approximate date of initiation for each entry involved.

**SUBSECTION 4.8.4 Timing**

A reclamation entry must be originated or a written demand for payment sent within five banking days after the Originator receives notice of the death of the Receiver. If a reclamation entry is returned by the RDFI, the Originator may make a written demand for payment within 15 banking days after it receives the returned reclamation entry. For this subsection, notice received by the Originator is considered to be effective from the time specified in Section 1-201(27) of the Uniform Commercial Code (1978 Official Text).

**SUBSECTION 4.8.5 Alteration by Agreement**

Notwithstanding any other provision of these rules, the liability provisions contained within this section 4.8 may be altered, amended, or superseded by a written agreement between the Originator and RDFI only if the agreement clearly and conspicuously states on its face that it is a master agreement, that both the Originator and RDFI consider it to be a master agreement, and that it is applicable to all payments subject to this section 4.8 sent by the Originator to the RDFI for the benefit of all Receivers having accounts at the RDFI. No provision of these rules prevents an RDFI from expressly agreeing in a master agreement that the liability provisions of this section 4.8 may be altered, amended, or superseded on a Receiver-by-Receiver basis.

**SECTION 4.9 RDFI Receipt of Death Notification Entry**

**SUBSECTION 4.9.1 Notification of Death**

Receipt of a DNE entry constitutes notice of death. Only an agency of the Federal Government may originate such entries.

**ARTICLE SIX - RETURN, ADJUSTMENT, CORRECTION, AND ACKNOWLEDGMENT OF ENTRIES AND ENTRY INFORMATION**

**SECTION 6.1 Return of Entries**

**SUBSECTION 6.1.1 Right to Return Entries**

Except as otherwise provided for in subsection 6.1.3 (Restrictions on Right to Return), an RDFI may return an entry for any reason.

**SUBSECTION 6.1.2 Requirements of Returns**

Each return entry must comply with the requirements of Appendix Five (Return Entries). Except as otherwise provided in this section 6.1, subsection 6.3.2 (ODFI and Originator Action on Notification of Change), subsection 2.7.6 (Return of a Destroyed Check Entry), and subsection 2.8.4 (Return of a Re-presented Check Entry), each return entry must be received by the RDFI's ACH Operator by its deposit deadline for the return entry to be made available to the ODFI no later than the opening of business on the second banking day following the Settlement Date of the original entry. For purposes of the preceding sentence, the term second banking day shall refer to the second banking day of the RDFI's ACH Operator, and the term Settlement Date of the original entry shall refer to the Settlement Date of the original entry that is being returned. A return entry relating to a credit entry subject to Article 4A must be transmitted by the RDFI to its ACH Operator prior to the time the RDFI accepts the credit entry as provided for under Article 4A, unless the Receiver of the entry does not have an account with the RDFI, the Receiver's account has been closed, or the RDFI is not permitted by law to receive credits for the Receiver's account. A return entry which is rejected by an ACH Operator does not meet or extend the deadline contained in this section 6.1.

**SUBSECTION 6.1.3 Restrictions on Right to Return**

An RDFI may not return an entry because it is a credit, debit, or zero dollar entry or is a particular type of credit, debit, or zero dollar entry. An RDFI may not return a prenotification because it relates

to credit or debit entries or to a particular type of credit or debit entry. An RDFI may, however, return any XCK debit entry or any entry received (including prenotification) that concerns any account that is not a "transaction account" (as defined in Regulation D of the Board of Governors of the Federal Reserve System) maintained with that RDFI.

**SUBSECTION 6.1.4 Credit Entries Returned by Receiver**

An RDFI may return any credit entry that is returned to it by a Receiver as provided for in subsection 4.4.4 (Crediting of Originators' Accounts by Receiver). The RDFI must transmit the return entry to the ACH Operator by midnight of the banking day following the banking day of receipt by the RDFI from the Receiver.

**SUBSECTION 6.1.5 Return of Unposted Credit Entries**

An RDFI must return all credit entries that are not credited or otherwise made available to its Receivers' accounts by midnight of the banking day following the Settlement Date.

**SUBSECTION 6.1.6 Acceptance of Return Entries by ODFI**

An ODFI must accept return entries complying with Appendix Five (Return Entries) and transmitted by the RDFI within the time limits established by these rules.

**SUBSECTION 6.1.7 Reinitiation of Return Entries by ODFI**

For all entries except RCK entries, an entry that has been returned may not be reinitiated unless (1) the entry has been returned for insufficient or uncollected funds; (2) the entry has been returned for stopped payment and reinitiation has been authorized by the Receiver; or (3) the ODFI has taken corrective action to remedy the reason for the return. An entry that has been returned for insufficient or uncollected funds may be reinitiated no more than two times following the return of the original entry.

For RCK entries, an entry that has been returned may not be reinitiated unless (1) the RCK entry has been returned for insufficient or uncollected funds, and (2) the item to which the RCK entry relates has been presented no more than one time in its physical form and no more than one time as an RCK entry.

**SUBSECTION 6.1.8 Reliance on DFI Account Number**

An RDFI may not return an entry to a transaction account based exclusively on data which was accurately obtained from the on-us field of the MICR line of a check or share draft for the account. This does not prevent the RDFI from initiating a notification of change and returning future entries if the notification of change is not properly acted upon.

## ARTICLE SEVEN - SETTLEMENT AND ACCOUNTABILITY

### SECTION 7.1 Maintenance of Reserve Bank Accounts

Each Participating DFI must maintain, or have the use through a correspondent of, an account with a Federal Reserve Bank.

### SECTION 7.2 Settlement

Settlement among Participating DFIs for entries, adjustment entries, and return entries transmitted in accordance with these rules will be effected by the crediting and debiting of the Federal Reserve Bank accounts of Participating DFIs referred to in section 7.1 (Maintenance of Reserve Bank Accounts). Settlement must be made in accordance with these rules, applicable operating circulars of the Federal Reserve Banks, and any other applicable agreements.

### SECTION 7.3 Effect of Settlement

Settlement of entries does not preclude a Participating DFI from pursuing any available legal rights or remedies concerning any entry, adjustment entry, or return entry, including without limitation any right or remedy arising out of a return entry or adjustment entry, transmitted after the time limits established by these rules.

### SECTION 7.4 Accountability for Entries

Each RDFI is accountable for the amount of all debit entries received that are not returned in accordance with these rules, except as provided for in subsection 6.3.2 (ODFI and Originator Action on Notification of Change). The RDFI's accountability under this section is not affected by the failure of the ODFI to comply with the provisions of section 6.2 (Dishonor of Return Entries).

### SECTION 7.5 Effect of RDFI Closing on Time of Settlement

If the scheduled Settlement Date of a debit entry is not a banking day for the RDFI but is a day on which the applicable office of the Federal Reserve Bank described in section 7.1 (Maintenance of Reserve Bank Accounts) is open, settlement will occur on the scheduled date, unless the RDFI has previously advised the Federal Reserve Bank that settlement for the entry should be deferred until the next banking day. If the RDFI has provided such notice to the Federal Reserve Bank, settlement for the debit entry will occur on the next banking day, and the RDFI shall pay the float charge assessed by the Federal Reserve.

### SECTION 7.6 Effect of ODFI Closing on Time of Settlement

If the scheduled Settlement Date for a credit entry is not a banking day for the ODFI but is a day on which the applicable office of the Federal Reserve Bank described in section 7.1 (Maintenance of Reserve Bank Accounts) is open, settlement will occur on the scheduled date.

## ARTICLE EIGHT - RECALL, STOP PAYMENT, RECREDIT, AND ADJUSTMENT

### SECTION 8.1 Recall by ODFI or Originator

Except as allowed by sections 2.4 (Reversing Files), 2.5 (Reversing Entries), and 2.6 (Reclamation Entries), neither an Originator nor an ODFI has the right to recall an entry or file, to require the return of or adjustment to an entry, or to stop the payment or posting of an entry, once the entry or file has been received by the Originating ACH Operator.

### SECTION 8.2 ODFI Request for Return

An ODFI may, orally or in writing, request an RDFI to return or adjust an erroneous entry initiated by the ODFI. For purposes of this section 8.2, an erroneous entry is an entry (1) that is a duplicate of an entry previously initiated by the Originator or ODFI, (2) that orders payment to or from a Receiver not intended to be credited or debited by the Originator, or (3) that orders payment in an amount different than was intended by the Originator. The RDFI may, but is not obligated to, comply with such a request. The ODFI making such a request indemnifies the RDFI from and against any and all claim, demand, loss, liability or expense, including attorneys' fees and costs, resulting directly or indirectly from compliance by the RDFI with such request.

### SECTION 8.3 ODFI Agrees to Accept CCD or CTX Return

If an RDFI receives written notification from a Receiver after the time for return has expired (see Article Six, section 6.1 - Return of Entries) that a CCD or CTX debit entry to the Receiver's account was, in whole or in part, not authorized by the Receiver, the RDFI may transmit a permissible return entry to the ODFI, provided that the ODFI agrees, either verbally or in writing, to accept the late return entry. The permissible return entry must be in the amount of the debit entry and must comply with the requirements of Article Six, section 6.1 and Appendix Five (Return Entries).

### SECTION 8.4 Stop Payment Affecting Consumer Accounts

For all entries except ARC entries, RCK entries, POP entries, Single-Entry WEB entries, and TEL entries, a Receiver may stop the payment of a debit entry initiated or to be initiated to a Consumer Account of the Receiver by providing either verbal or written notification to the RDFI at least three banking days before the scheduled date of the transfer. An RDFI may honor a stop payment order received within the three-banking-day limit prescribed above, and, if it honors such a request, the RDFI has no resultant liability or responsibility to any Originator, ODFI, or other person having any interest in the entry. For ARC entries, for RCK entries, for POP entries, for Single-Entry WEB entries, and for TEL entries, the stop payment order must be provided to the RDFI at such time and in such manner as to allow the RDFI a reasonable opportunity to act upon the stop payment order prior to acting on the debit entry. The RDFI may require that written confirmation of a verbal stop payment order be made within 14 days of a verbal stop payment order, provided that the RDFI notifies the Receiver of this requirement and provides an address to which the written confirmation should be sent at the time the verbal order is provided. If the RDFI requires written confirmation, the verbal stop payment order will cease to be binding after 14 days. A Receiver may withdraw a stop payment order by providing written notice to the RDFI. A stop payment order will remain in effect (1) for six months from the date of the stop payment order, (2) until payment of the debit entry has been stopped, or (3) until the Receiver withdraws the stop payment order, whichever occurs earliest.

### SECTION 8.5 Stop Payment Affecting Non-Consumer Accounts

A Receiver may order its RDFI to stop the payment of any debit entry initiated or to be initiated to a non-Consumer Account of the Receiver. The stop payment order must be provided to the RDFI at such time and in such manner as to allow the RDFI a reasonable opportunity to act upon the stop

payment order prior to acting on the debit entry. The RDFI is obligated to comply with a verbal stop payment order only for a period of fourteen calendar days unless the order is confirmed in writing within that 14-day period. A written stop payment order is effective for six months unless it is renewed in writing.

**SECTION 8.6 Receiver's Right to Recredit**

**SUBSECTION 8.6.1 Receiver's Right to Recredit**

For all consumer entries except ARC entries, POP entries, and RCK entries, an RDFI must promptly credit the amount of a debit entry to a Consumer Account of a Receiver if (1) the Receiver sends or delivers to the RDFI a written statement under penalty of perjury as described in subsection 8.6.5 (Receiver's Written Statement Under Penalty of Perjury) that the debit entry was not authorized.

**SECTION 14.1 Definitions As Used In These Rules**

**SUBSECTION 14.1.1 "ACH Operator" or "Automated Clearing House Operator"**

means (1) a Federal Reserve Bank that performs all of the following, or (2) an entity that executes an annual agreement with the National Association in which the entity agrees to comply with or perform all of the following:

- adhere to these rules (except to the extent inconsistent with the policies or practices of the Federal Reserve Banks) and other applicable laws, regulations, and policies;
- execute agreements with a minimum of twenty independent (i.e., not owned by the same holding company) Participating DFIs that bind such entities to the ACH Operator's rules and to these rules (except that a Federal Reserve Bank shall not be required to bind a Participating DFI to any provision of such rules of the National Association that is not incorporated by the Uniform Operating Circular of the Federal Reserve Banks);
- (1) provide clearing, delivery, and settlement services for ACH entries, as defined by these rules, between Participating DFIs that have selected that ACH Operator to perform ACH services (intra-ACH Operator services), and (2) exchange transactions with other ACH Operators (inter-ACH Operator exchange);
- process and edit files based on the requirements of these rules;
- evaluate the credit worthiness of and apply risk control measures to their Participating DFIs;
- adhere to the Federal Reserve's Policy Statement on Privately Operated Multilateral Settlement Systems (as applicable); and
- adhere to any National ACH Operator Performance Standards of the National Association.

**SUBSECTION 14.1.2 "ACK Entry" or "ACK"**

means an entry which provides an acknowledgment of receipt by the RDFI of a corporate credit payment originated using the CCD format. An ACK entry may be accompanied by one addenda record which relays information about the financial EDI credit payment using the ANSI ASC X12 REF (Reference) data segment.

**SUBSECTION 14.1.3 "Alphameric"**

means any character 0 - 9, A - Z, blank, and printable special characters which have an EBCDIC value greater than hexadecimal 3F. Fields defined in these Rules as "alphameric" may contain any of these allowable characters.

**SUBSECTION 14.1.4 "ANSI ASC X12.5" (Interchange Control Structure)**

means the standard to define the control structures for the electronic interchange of business transactions encoded in ASC X12-based syntax. This standard provides the interchange envelope of a header and trailer for the electronic interchange through a data transmission, a structure to acknowledge the receipt and processing of this envelope, and optional, interchange-level service request structures.

**SUBSECTION 14.1.5 "ANSI ASC X12.6" (Application Control Structure)**

means the standard used to define the structure of business transactions for computer-to-computer interchange. This structure is expressed using a symbolic representation of X12 data in terms of both the design and use of X12 structures, independent of the physical representation (e.g., character set encoding).

**SUBSECTION 14.1.6 "ARC entry"**

means a Single Entry debit initiated by an Originator to a Consumer Account of the Receiver pursuant to a source document, as set forth in subsection 2.9.1 (Source Documents), provided to the Originator by the Receiver via the U.S. mail or at a dropbox location.

**SUBSECTION 14.1.7 "Article 4A"**

means Article 4A of the Uniform Commercial Code as enacted in the State of New York.

**SUBSECTION 14.1.8 "Association"**

means any member of the National ACH Association.

**SUBSECTION 14.1.9 "ATX entry" or "ATX"**

means an entry which provides an acknowledgment of receipt by the RDFI of a corporate credit payment originated using the CTX format. An ATX entry may be accompanied by one addenda record which relays information about the financial EDI credit payment using the ANSI ASC X12 REF (Reference) data segment.

**SUBSECTION 14.1.10 "Automated Clearing House" or "ACH"**

means a funds transfer system governed by the Rules of the National Automated Clearing House Association which provides for the interbank clearing of electronic entries for participating financial institutions.

**SUBSECTION 14.1.11 "BPR or BPS Data Segment" or "Beginning Segment for Payment Order/Remittance Advice"**

means the beginning segment for the payment order/remittance advice used in ASC X12-based syntax to indicate the beginning of a payment-related transaction set which contains the necessary banking information to process the transaction.

**SUBSECTION 14.1.12 "Banking Day"**

means, with reference to a Participating DFI, any day on which such DFI is open to the public during any part of such day for carrying on substantially all of its banking functions, and, with reference to an ACH Operator, any day on which the appropriate facility of such ACH Operator is being operated.

**SUBSECTION 14.1.13 "Business Day"**

means a calendar day other than a Saturday, Sunday, or Federal holiday.

**SUBSECTION 14.1.14 "CBR entry"**

means a credit or debit entry initiated to effect a payment exchanged between payment system participants of different countries, via an Originating Gateway Operator and a Receiving Gateway Operator, to or from a corporate account of the Receiver.

**SUBSECTION 14.1.15 "CCD entry"**

means a credit or debit entry initiated by an organization to consolidate funds of that organization from its branches, franchises or agents, or from other organizations, or to fund the accounts of its branches, franchises or agents, or of another organization. "CCD+" is a CCD entry with one addenda record.

**SUBSECTION 14.1.16 "CIE entry" or "CIE"**

means a credit entry initiated by or on behalf of the holder of a Consumer Account to effect a transfer of funds to the account of the Receiver. "CIE+" is a CIE entry with one addenda record.

**SUBSECTION 14.1.17 "Consumer Account"**

means an account held by a Participating DFI and established by a natural person primarily for personal, family or household and not for commercial purposes.

**SUBSECTION 14.1.18 "CTX entry"**

means a credit or debit entry initiated by an organization to effect a transfer of funds to or from the account of that organization or another organization and accompanied by addenda records that relay information formatted in accordance with the ANSI ASC X12.5 and X12.6 syntax, an ASC X12 transaction set containing a BPR or BPS data segment, or payment related UN/EDIFACT syntax. A CTX entry can contain up to 9,999 addenda records.

**SUBSECTION 14.1.19 "DNE entry" or "DNE"**

means a notice to an RDFI of the death of a Receiver. Only an agency of the Federal Government may originate a DNE entry.

**SUBSECTION 14.1.20 "Electronic"**

means relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.

**SUBSECTION 14.1.21 "Electronic Record"**

means an agreement, authorization, written statement under penalty of perjury, or other record created, generated, sent, communicated, received, or stored by electronic means.

**SUBSECTION 14.1.22 "Electronic Signature"**

means an electronic sound, symbol, or process attached to or logically associated with an agreement, authorization, written statement under penalty of perjury, or other record and executed or adopted by a person with the intent to sign the record.

**SUBSECTION 14.1.23 "ENR entry" or "ENR"**

means a credit or debit enrollment entry initiated by a participating DFI to a Federal Government Agency on behalf of an account holder at the DFI and who requests the initiation of the ENR. An ENR entry may contain up to 9,999 addenda records.

**SUBSECTION 14.1.24 "Entry"**

means an order or request complying with the requirements of Appendix Two (ACH Record Format Specifications) (1) for the transfer of money to the account of a Receiver (a "credit entry"), (2) for the withdrawal of money from the transaction account or general ledger account of a Receiver (a "debit entry"), (3) a zero dollar entry, (4) a DNE entry, or (5) an ENR entry. For all entries except RCK entries, each debit entry shall be deemed an "item" within the meaning of Revised Article 4 of the Uniform Commercial Code (1990 Official Text) and that Article shall apply to such entries except where the application is inconsistent with these rules, in which case these rules shall control. An RCK entry is an item as defined by Revised Article 4 of the Uniform Commercial Code only for the limited purposes of presentment as set forth in Article 4-110(c) and notice of dishonor as set forth in Article 4-301(a)(2).

**SUBSECTION 14.1.25 "Entry data"**

means, as applicable, prenotifications, returned entries, adjustment entries, notifications of change and/or other notices or data transmitted through one or more ACH Operators pursuant to these rules.

**SUBSECTION 14.1.26 "Existing Relationship"**

The Originator and Receiver have an existing relationship when there is a written agreement in place between the Originator and the Receiver or when the Receiver has purchased goods or services from the Originator within the past two years.

**SUBSECTION 14.1.27 "File"**

means a group of entries complying with the requirements of Appendix Two (ACH Record Format Specifications), associated with a given transmittal register and the control totals set forth therein.

**SUBSECTION 14.1.28 "Inbound entry"**

means an entry that originates in another country and is transmitted to the United States. An inbound cross-border entry includes both inbound CBR entries and inbound PBR entries.

**SUBSECTION 14.1.29 "MTE entry" or "MTE"**

means a credit or debit entry initiated at an electronic terminal as defined in Regulation E of the Board of Governors of the Federal Reserve System, to effect a transfer of funds to or from the consumer's account maintained with an RDFI, i.e., an ATM cash deposit or withdrawal.

**SUBSECTION 14.1.30 "Midnight of a banking day"**

means midnight of the calendar day on which such banking day falls.

**SUBSECTION 14.1.31 "National Association"**

means the National Automated Clearing House Association.

**SUBSECTION 14.1.32 "Non-Settled entry"**

means an entry for which settlement cannot be completed under the rules governing the settlement of that entry.

**SUBSECTION 14.1.33 "Organization"**

means a corporation, partnership, association or other entity, governmental or private, or a natural person, provided that, in the case of a natural person, any account of such person to be debited or credited with the amount of any entry is maintained primarily for commercial and not for personal, family or household purposes.

**SUBSECTION 14.1.34 "Originating Automated Clearing House Operator" or "Originating ACH Operator"**

means an ACH Operator that receives entries from an ODFI with which it has an agreement. In the event entries and entry data are transmitted between an ODFI and an RDFI through a single ACH Operator, the term shall be deemed to refer to that ACH Operator.

**SUBSECTION 14.1.35 "Originating Depository Financial Institution" or "ODFI"**

A Participating Depository Financial Institution is an ODFI with respect to entries (1) it transmits directly or indirectly to its ACH Operator for transmittal to an RDFI, and (2) on which it is designated as the ODFI in accordance with Appendix Two (ACH Record Format Specifications).

**SUBSECTION 14.1.36 "Originating Gateway Operator" or "OGO"**

An Originating Gateway Operator must be either an ACH Operator or a Receiving Depository Financial Institution, as defined by these rules. An Originating Gateway Operator that also acts as an ACH Operator is deemed to have assumed the specific responsibilities and warranties of the RDFI with respect to cross-border transactions. By transmitting a cross-border payment to a Receiving Gateway Operator, an Originating Gateway Operator implicitly agrees to comply with the requirements of the Cross-Border Payment Operating Rules.

**SUBSECTION 14.1.37 "Originator"**

means (1) a person that has authorized an ODFI to send or transmit, for the account of that person, (i) a credit entry to the account of a Receiver with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, in order to effect a payment from that person to the Receiver, or (ii) a debit entry to the Receiver's transaction account or general ledger account with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, in order to effect a payment from the Receiver to that person; or (2) a person that has authorized a Third-Party Sender to send or transmit to an ODFI for the account of that, or another, Third-Party Sender, (i) a credit entry to the account of a Receiver with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, in order to effect a payment from that person to the Receiver, or (ii) a debit entry to the Receiver's transaction account or general ledger account with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, in order to effect a payment from the Receiver to that person. Where the context so requires, as in the case of MTE entries, that term also refers to the ODFI.

**SUBSECTION 14.1.38 "Outbound entry"**

means an entry that originates in the United States and is transmitted to another country. An outbound cross-border entry includes both outbound CBR entries and outbound PBR entries.

**SUBSECTION 14.1.39 "Participating Depository Financial Institution" or "Participating DFI"**

means a financial institution that (1) is authorized by law to accept deposits, (2) has been assigned a routing number by Thomson Financial Publishing, and (3) has agreed to be bound by these rules as in effect from time to time. A Participating DFI of an Association is a Participating DFI which is a member of such Association or authorized by such Association to transmit entries and receive entries from an ACH Operator. Only Participating DFIs may act as ODFIs or RDFIs.

**SUBSECTION 14.1.40 "PBR entry"**

means a credit or debit entry initiated to effect a payment exchanged between payment system participants of different countries, via an Originating Gateway Operator and a Receiving Gateway Operator, to or from a Consumer Account of the Receiver.

**SUBSECTION 14.1.41 "Person"**

means a natural person or an organization.

**SUBSECTION 14.1.42 "POP entry"**

means a Single Entry debit initiated by an Originator pursuant to a source document as set forth in subsection 3.8.1 (Source Documents), provided to the Originator by the Receiver at the point-of-purchase to effect a transfer of funds from a Consumer Account of the Receiver. This type of entry may only be used for non-recurring, in-person (i.e., at the point-of-purchase) entries for which there is no standing authorization with the Originator for the origination of ACH entries to the Receiver's account.

**SUBSECTION 14.1.43 "POS entry"**

means a debit entry initiated at an electronic terminal as defined in Regulation E of the Board of Governors of the Federal Reserve System to effect a transfer of funds from a Consumer Account of the Receiver to pay an obligation incurred in a point-of-sale transaction, or to effect a point-of-sale terminal cash withdrawal, and reversing, adjusting, and other credit entries relating to such debit entries, transfer of funds or obligations.

**SUBSECTION 14.1.44 "PPD entry"**

means a credit or debit entry (other than an MTE or POS entry) initiated by an organization pursuant to a standing or a single entry authorization from a Receiver to effect a transfer of funds to or from a Consumer Account of the Receiver. "PPD+" is a PPD entry with one addenda record.

**SUBSECTION 14.1.45 "RCK entry"**

means a Single Entry debit constituting a presentment notice of an item eligible under Section 2.8 (Re-presented Check Entries). An RCK entry is an item as defined by Revised Article 4 of

the Uniform Commercial Code (1990 Official Text) only for the limited purposes of presentment as set forth in Article 4-110(c) and notice of dishonor as set forth in Article 4-301(a)(2).

**SUBSECTION 14.1.46 "Record"**

means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.

**SUBSECTION 14.1.47 "Receiver"**

means a person that has authorized an Originator to initiate (1) a credit entry to the Receiver's account with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, or (2) a debit entry to the Receiver's transaction account or general ledger account with an RDFI, or, if the Receiver is also the RDFI, to such Receiver. With respect to debit entries, the term "Receiver" shall be deemed to mean all persons whose signatures are required to withdraw funds from an account for purposes of the warranty provisions of subsection 2.2.1 (Warranties).

**SUBSECTION 14.1.48 "Receiving Automated Clearing House Operator" or "Receiving ACH Operator"**

means an ACH Operator that distributes entries to an RDFI with which it has an agreement. In the event entries or entry data are transmitted between an ODFI and an RDFI through a single ACH Operator, the term shall be deemed to refer to that ACH Operator.

**SUBSECTION 14.1.49 "Receiving Depository Financial Institution" or "RDFI"**

A Participating Depository Financial Institution is an RDFI with respect to entries (1) it receives from its ACH Operator for debit or credit to the accounts of Receivers, and (2) on which it is designated as the RDFI in accordance with Appendix Two (ACH Record Format Specifications).

**SUBSECTION 14.1.50 "Receiving Gateway Operator" or "RGO"**

A Receiving Gateway Operator must be either an ACH Operator or an Originating Depository Financial Institution, as defined by these rules. A Receiving Gateway Operator that also acts as an ACH Operator is deemed to have assumed the specific responsibilities and warranties of the ODFI with respect to cross-border transactions. By receiving a cross-border payment from an Originating Gateway Operator, a Receiving Gateway Operator implicitly agrees to comply with the requirements of the Cross-Border Payment Operating Rules.

**SUBSECTION 14.1.51 "Receiving Point"**

means a person that receives entries from an ACH Operator on behalf of an RDFI. A Receiving Point may be an RDFI acting on its own behalf, a Participating DFI, a commercial data processing service organization, or a person operating a data transmission facility, acting on behalf of one or more RDFIs.

**SUBSECTION 14.1.52 "Send"**

means to deposit in the mail or to communicate by any other usual means with postage or cost of transportation provided for and properly addressed, or by facsimile.

**SUBSECTION 14.1.53 "Sending Point"**

means a person that transmits entries to an ACH Operator on behalf of an ODFI. A Sending Point may be an ODFI acting on its own behalf, or a Participating DFI, a commercial data processing service organization or a person operating a data transmission facility, acting on behalf of one or more ODFIs.

**SUBSECTION 14.1.54 "Settlement Date"**

means the date an exchange of funds with respect to an entry is reflected on the books of the Federal Reserve Bank(s).

**SUBSECTION 14.1.55 "SHR entry"**

means a debit entry initiated at an electronic terminal as defined in Regulation E of the Board of Governors of the Federal Reserve System to effect a transfer of funds from a Consumer Account of the Receiver to pay an obligation incurred in a point-of-sale transaction, or to effect a point-of-sale

terminal cash withdrawal, and reversing, adjusting, and other credit entries relating to such debit entries, transfer of funds or obligations. SHR entries are initiated in a shared network where the ODFI and RDFI have an agreement in addition to these rules to process such entries.

**SUBSECTION 14.1.56 "Single Entry"**

means a one-time transfer of funds initiated by an Originator in accordance with the Receiver's authorization for a single ACH credit or debit to the Receiver's Consumer Account.

**SUBSECTION 14.1.57 "TEL entry"**

means a Single-Entry debit initiated by an Originator pursuant to an oral authorization obtained over the telephone to effect a transfer of funds from a Consumer Account of the Receiver. This type of entry may only be used for a Single Entry for which there is no standing authorization for the origination of ACH entries to the Receiver's account. A TEL entry may only be used when there is an Existing Relationship between the Originator and the Receiver, or, when there is not an Existing Relationship between the Originator and the Receiver, when the Receiver initiates the telephone call.

**SUBSECTION 14.1.58 "Third-Party Sender"**

means a person that is not an Originator that has authorized an ODFI or another Third-Party Sender to transmit, for the account of the Third-Party Sender or another Third-Party Sender, (i) a credit entry to the account of a Receiver with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, in order to effect a payment from the Originator to the Receiver, or (ii) a debit entry to the Receiver's transaction account or general ledger account with an RDFI, or, if the Receiver is also the RDFI, to such Receiver, in order to effect a payment from the Receiver to the Originator.

**SUBSECTION 14.1.59 "Third-Party Service Provider"**

means an entity other than an Originator, ODFI, or RDFI that performs any functions on behalf of the Originator, the ODFI, or the RDFI related to ACH processing of entries, including but not limited to, the creation of ACH files or acting as a sending or receiving point on behalf of a Participating DFI.

**SUBSECTION 14.1.60 "Transmit"**

means to deliver by electronic means of communication.

**SUBSECTION 14.1.61 "TRC entry"**

means a debit entry initiated pursuant to a check truncation program.

**SUBSECTION 14.1.62 "Truncation"**

means a process whereby checks are presented by transmission of information describing the check rather than by the delivery of the check itself.

**SUBSECTION 14.1.63 "TRX entry"**

means an entry initiated pursuant to a check truncation program. Multiple checks are placed in the Payment Related Information section of the Addenda Record in accordance with National Association for Check Safekeeping syntax. A TRX entry can contain up to 9,999 addenda records.

**SUBSECTION 14.1.64 "Unsecured Electronic Network"**

means a network, public or private, that is not located entirely within a single, contiguous, physical facility and any part of which that has not implemented security technologies that provide a level of security that, at a minimum, is equivalent to 128-bit RC4 encryption technology.

**SUBSECTION 14.1.65 "WEB entry" or "WEB"**

means a debit entry initiated by an Originator pursuant to an authorization that is obtained from the Receiver via the Internet to effect a transfer of funds from a Consumer Account of the Receiver.

**SUBSECTION 14.1.66 "XCK entry"**

means a debit entry initiated in the event an item eligible for section 2.7 (Destroyed Check Entries) is contained within a cash letter that is lost, destroyed, or otherwise unavailable to and cannot be obtained by an ODFI.

**SUBSECTION 14.1.67 "Zero Dollar Entry"**

means an entry which carries a zero amount but does include payment related remittance data. Zero dollar entries are limited to CTX and CCD entries that carry remittance data related to the payment. For example, pre- advice entries that carry remittance data that indicates a credit position of the Originator to the Receiver, or entries relating to a period of time during which no funds are owed by the Originator to the Receiver.

**American Bar Association Task Force on Stored-Value Cards, *A Commercial Lawyer's Take on the Electronic Purse*, 52 BUS. LAW. 653, 657-658, 660, 670-671, 674-700, 705-727 (1997).**

The new payment products, commonly referred to as stored-value products, are being developed according to different models. The simplest model is that of a single issuer supplying cards for a single purpose. One example is the New York City Metropolitan Transit Authority, which has issued the Metro Card, designed for use on certain buses and at train stations in New York City. Another example is prepaid telephone cards that telephone companies issue for use with pay telephones. With these two products, the user exchanges money for a card that entitles the user to a monetary amount of a purchased service--$40 worth of transportation service, for example. With respect to the transit card, the user presents the card, swipes it through a reader, and receives a ride in return for "value" that is electronically removed from the card. Prepaid telephone cards often require the user to input an access code.

In other cases, a single issuer supplies a card that can be used more widely to pay for different goods and services. For example, a university might issue a card that entitles the purchaser to a given monetary amount of rides on university transportation and also to a set monetary amount of food, photocopying, books, and vending machine items on a specific college campus. In either case, because of the limited range of uses or the fact that the issuer (in this example the university) is also the payee, these stored-value card systems are referred to as "closed" systems. Generally, in a closed system (and often in an open system), the "value" on a card or other storage device can only be used once.

"Open" systems provide even greater versatility. These devices may have a single issuer or multiple issuers. They are considered "open" in the sense that they may be used for a wide variety of transactions, with the issuer of the value not necessarily being the entity providing the good or service. In the case of the single-issuer model, one firm would develop the product and issue the "value" used on the cards but would employ other firms as members of its distribution and marketing network. The firms in the distribution network, and third party merchants and vendors, would accept the "value" stored by users of the product and ultimately redeem that "value" from the issuing institution. . . .

Electronic "value" can also be stored on personal computers and used for transactions on computer networks (or other communications networks), employing either the single-issuer or multiple-issuer models previously outlined for stored-value cards. In contrast to stored-value cards, which are largely intended to be used for point-of-sale transactions, "value" stored on personal computers and transmitted over networks can be used for transactions where the buyer is at a location remote from the seller and the actual place of sale. In certain advanced models, "value" can move from a card over a communications network to another card. . . .

[Such products] are not legal tender, no more so than checks or wire transfers. Our unqualified legal opinion is that they represent choses in action or claims. Our opinion is based on the intended use and

design of these products: namely, a promise by the issuer to pay the claims represented by the "value" subject to any terms and conditions on that promise. Similarly, under the U.C.C., these products are not money because they do not represent "a medium of exchange authorized or adopted by a domestic or foreign government." To the extent that people mean "legal tender" when they say "money," the new payment products are not money. A person is not, therefore, required to accept any of the new payment products in satisfaction of a monetary obligation. Moreover, tender of the new payment products does not, as a matter of law, discharge the underlying debt obligation. Consequently, there is a legal distinction between "electronic money" and legal tender.

Having stated our legal opinion, we also do not want it to be misinterpreted. It is one thing to say that stored value is not money; but it may well function almost exactly like money. The term "money" is often used colloquially to mean any thing that is widely accepted as payment by market participants in exchange for goods or services or to extinguish debts. If market participants are willing to accept stored value as if it were money, then using terminology like "electronic money" may be appropriate. For purposes of performing a comprehensive legal analysis of stored-value products, however, it is crucial that the stored value be understood to represent evidence of a claim and not to constitute either money or legal tender. . . .

THE LIFE-CYCLE OF A STORED ELECTRONIC OBLIGATION

Although not a legal concept, most of the materials describing the new products use the terms "value" or "stored value" to describe the intangible rights associated with the new payment products. There is, however, nothing intrinsically valuable about a stored obligation. The "value" stored on the new payment products is no more than a representation of someone's promise to pay which may be valuable or worthless. The value of that promise, if any, will depend on numerous factors, including the creditworthiness of the promisor and a guaranty of the promise.

One way that the promise may be guaranteed is through deposit insurance, if the issuer is a bank. On August 2, 1996, the FDIC released General Counsel Opinion No. 8 indicating that most stored-obligation products will not be eligible for FDIC insurance. The opinion indicates, however, that issuers of stored-obligation products retain flexibility to create a product that holds customer funds in an insured deposit account. For example, FDIC insurance may apply if the funds represented by the card are maintained in the customer's own account until a payment is made. Stored-obligation products that are designed to be eligible for FDIC insurance may limit the issuer's use of collected funds and impact the margin of profitability of such products due to the potential cost of FDIC deposit insurance assessments and Federal Reserve System reserve requirements. Accordingly, many believe it is unlikely that stored obligation issuers will book their liabilities in a manner that gives rise to federal deposit insurance coverage.

A nonbank issuer, on the other hand, may be subject to state money transmitter statutes that safeguard the funds collected by the issuer. Most states have a prohibition on the transmission of money by a nonbank entity unless it is licensed by the state. Depending on the specific state statute, the issuance of the obligations associated with the new payment products may very well be viewed as part of the business of "money transmission." Money transmitter statutes may apply to nonbank issuers and

include: (i) a requirement to maintain a certain level of reserves in specifically authorized investments; (ii) annual reporting and audit requirements; (iii) restrictions on who can own and operate such issuers; and (iv) bonding requirements. All of these requirements protect against the issuer's inability to make payment as promised.

Much attention has also been devoted to considering whether the "due to" account on the issuer's books constitutes a deposit account. A determination that the issuance of these obligations is the equivalent of accepting deposits has significant ramifications for both bank and nonbank issuers. For a bank issuer, such a determination could result in reserve requirements imposed by the Federal Reserve System.

While these increased costs would impact on a bank issuer's ability to offer the new payment products, a determination that the created obligations are the equivalent of a deposit could foreclose the business to many nonbank issuers, at least to those who were not supervised by a state or federal licensing authority. Section 21(a)(2) of the Glass-Steagall Act of 1933 prohibits persons from engaging in the business of receiving deposits unless they are licensed or regulated by the state or federal government. Similar anti-encroachment laws exist at the state level. Because the determination on this key issue is of vital interest to the emerging industry, an analysis of such restrictions would benefit from a review of the treatment of products currently on the market such as cashier's checks, subway tokens, money orders, and gift certificates. Finally, if the obligations are issued by a nonbank, could the new product be considered a security?

As noted previously, the Task Force believes that stored "value" is simply someone's obligation to pay and, therefore, this Report uses the term "obligation" to refer to the intangible claim that is transferred when a party uses one of these new payment products. The term "monetary obligation" is used to refer to the debt that a party is trying to extinguish by tendering the intangible right stored on the new payment product. From a legal perspective, it is not useful and perhaps misleading to characterize the tender of an obligation as an offer to transfer money.

Having established that these obligations are essentially claims and not either legal tender or money, it is helpful to analyze them systemically as if they had their own life cycle. One might conceptualize the obligation as having three distinct stages: (i) creation of the obligation (birth); (ii) transfer of the obligation (growth); and (iii) settlement and discharge (death).

CREATION OF THE OBLIGATION

The first stage in the life-cycle of a stored obligation will be its creation on a device. For much of the analysis that follows, we will assume these devices may take the form of plastic cards with the name of the issuer emblazoned across the front, probably in some attention-catching color.

A threshold question arises as to when the obligation is created. In our paradigm example, the plastic-card stock may be manufactured by a supplier and stamped with the issuer's identification or trademark well before any obligation is recorded onto the card itself. The existence of the card does not create an obligation. The card is simply a storage device. If, for example, the card were to be stolen during shipment to the issuer and then sold by a thief, the mere existence of the card would again not

create any obligation on the part of the issuer. This example turns attention to the event that causes obligations to arise, an event that this Report calls "obligation creation."

The event of obligation creation will have financial consequences for the financial condition of the issuer and the user. At the moment in time when the obligation is created, the liability side of the issuer's balance sheet should increase in the amount of the created obligation (assuming cash is used to buy the card). Similarly, if the user had a balance sheet, the asset side would be increased to reflect a "due from" issuer. If the card has an obligation loaded onto it which has been purchased with federal reserve notes, the offsetting entry on the asset side of the issuer's balance sheet will be an increase in currency, or cash. Having said this, we believe there is a consensus that an obligation is created when money is exchanged for a stored obligation. This act may or may not occur at the time when the issuer recognizes the obligation with an entry on its own balance sheet.

Are the exchange of money for a stored obligation and the recognition of the obligation on the issuer's books the only events that will cause the obligation to arise? The question is rhetorical and the answer is clearly "no." One can imagine other situations where an obligation will arise. Suppose an issuer has a dishonest officer who sells activated, value-loaded cards from his or her office in the issuer's building but who does not mark the issuer's books and records because the officer is stealing the proceeds. Surely, in this example, the issuer will be held responsible for the dishonesty of its officer, much like banks are held responsible for pilferage of deposits by their tellers.

The next question is whether or not an obligation can arise on the part of the issuer when the issuer receives no consideration and the obligation which has been issued was not authorized. For example, if an interloper creates a phony cashier's check, using the name of a legitimate bank in the drawee field, and then forges the signature of the bank's president on the check, it is clear that the named bank has no obligation to pay on the instrument, even if the instrument is transferred to a holder in due course. The same result would be reached if the instrument were a traveler's check. If these same rules were applied by analogy to obligations recorded on a stored-value card, the obligation could not be enforced against the purported issuer.

It is not, however, clear that this is the appropriate rule for stored obligations. Because the issuer of a stored obligation has control of the technology which is supposed to protect cardholders and payees from unintentionally creating or accepting fraudulent obligations, it may be argued that the issuer should be held responsible if the technology allows the fraudulent obligations to be transferred. Similarly, if a vending machine used by the issuer to sell stored-value cards starts malfunctioning and spitting out cards with stored obligations already loaded on them, it may be appropriate to treat the stored obligations as liabilities of the issuer if the technology does not permit the issuer to stop the transfer of the obligations or trace the use of the obligations back to an individual.

The Task Force believes the law is unclear as to the circumstances that will give rise to the liability of the issuer with respect to a stored obligation. We are, however, confident in stating a generalized opinion that liability will arise from conduct by the issuer or someone with actual or apparent authority of the issuer, if that conduct would be sufficient to create a claim under common law contract principles. Questions are likely to be raised as to the nature and level of the conduct necessary to create

the liability. The Task Force, therefore, recommends this issue be addressed in system rules, private contracts, and promotional materials for the products.

*Who is the Obligor?*

The discussion thus far has proceeded on the assumption that the issuer is easily identifiable--in our example, the card was emblazoned with the issuer's name in bold colors. The question was not the identity of the issuer but whether the issuer created an obligation to pay. The identity of the issuer of a created obligation, however, is equally important.

In the introduction, we observed that one common characteristic of all the new products is that someone (the purchaser of the stored obligation) extends credit to someone else (the issuer of the obligation). We also introduced a basic principle regarding credit extension--the borrower's ability to repay. Perhaps the most classic commercial law issue raised in the context of a stored obligation is the identification of the obligor, i.e., the issuer. The identification of the issuer is critical because it is the only way for potential users of the products to measure the credit risk associated with the new payment products; as stated earlier, the obligation is only as valuable as the issuer is creditworthy.

Let us digress for a moment and consider one payment product that has great name recognition, American Express Traveler's Checks. These items are taken from travelers around the world as payment for goods and services. Merchants presumably take these instruments because they know and have confidence in the obligor, American Express Travel Related Services Company. These merchants know the identity of the obligor because American Express is recognizable from the face of the instrument itself--they see the name American Express and also see the company symbolized by the distinctive centurion figure. The identification of the issuer is, however, more than just a question of check design. State law requires that the issuer be identified on these instruments.

Identifying the issuer of a stored obligation may not be so easy. The entity providing the user with the stored obligation or the reader making it transferrable may not be the same corporate entity as the issuer. For example, Mondex obligations will be issued by the originator and sold by the originator to members. The members will, in turn, sell Mondex obligations to users. Unless the identity of the originator is disclosed to the user by the member, the user may never know its credit risk is ultimately with the originator, or worse, may mistakenly conclude the obligation is backed with the credit of a person who is not the issuer. Such a mistake in judgment could occur if the user concluded the actual issuer is the member that sold the product. In other instances, the issuer may be only one of several names on a card or computer device.

The Task Force believes the identity of the entity or entities that are liable to pay the stored obligation should be identifiable by the purchaser at, or prior to, the time when the stored obligation is purchased. While this information could be revealed on the face of the card itself, and in the view of many Task Force members this would be prudent, it is the substance of the disclosure that is important rather than its form. Thus, for example, a stored-obligation product that uses an ATM network to reload obligations onto a storage device might include in its initial contract with a purchaser that all obligations loaded onto the storage device from an ATM are obligations of the issuer. Knowledge of the identity

of the issuer will permit those who accept transfer of a stored obligation from a card, computer, or other storage device to evaluate, control, and appropriately limit their credit risk.

The Task Force also observes that an innocent user of a stored obligation who is injured may well seek redress against any entity whose name appears on a card or other storage device. The Task Force recognizes that there are legitimate business reasons for the issuer to include names of other entities on the cards and other storage devices, such as co-branders, service marks, and affinity groups, without seeking to subject these diverse entities to any liability for payment of the stored obligation. For example, facilitating the inclusion of names other than the issuer may enhance the economic viability of the product because issuers will likely earn a fee for the privilege of cobranding or forming an affinity group. If the issuer of a stored obligation fails before it has discharged all of its obligations, however, a court looking to apportion liability could determine that any entity whose name appears on the card or other storage device is liable under any one of a number of theories.

Where the issuer is not identified on the card or storage device in any manner, the party who is identified on the product, or even on materials that accompany the product, may be treated by a court as the agent of an undisclosed principal. As such, the identified party could be held liable for the amount of the stored obligation, particularly in the absence of a clear contractual agreement to the contrary or a conspicuous disclaimer of such liability. All of the new payment products anticipate some type of agreement between the users of the product and the issuer of the product. An agent will generally be held liable for any contracts that it enters into on behalf of an undisclosed or partially disclosed principal, unless the agent can show the other contracting party had reason to know the agent was contracting for another.

Whether the entity whose name appears on the card will be viewed as one of the contracting parties will be a question of fact. It may very well depend on the medium and manner in which the contract was presented to the user. Assume, for example, that the contract between the user and the issuer appears on a computer screen and the software permits the user to skip over the contract screens. If the software developer's name is the only name appearing prominently on the user's computer, the user may be lulled into believing that the user's agreement is with the software provider and not with the issuer of the obligation.

Whether the user has knowledge of the agency relationship will also be a question of fact. For example, in Paynesville Farmers Union Oil Co. v. Ever Ready Oil Co., an oil supplier sued the shareholders of a corporation claiming they were liable as individuals for the debt of their undisclosed principal--the corporation. The court found that the shareholders had not acted as agents for an undisclosed principal; the oil supplier should have had notice of the corporation's existence because the supplier was paid with a series of checks drawn on the corporation. In the case of Grote Meat Co. v. Goldenberg, on the other hand, the court held that the principal shareholder, who was also president of the corporation, was liable for the corporation's debt to a certain supplier because the shareholder had an affirmative duty to disclose his agency status; use of a corporate check to pay for deliveries was neither notice nor the equivalent of notice as to the identity of the principal.

Alternatively, a court could analogize to the law of negotiable instruments, for example, and deem the name of the entity on the card to be the equivalent of an indorsement on an instrument. An indorsement means

> a signature, other than that of a signer as maker, drawer, or acceptor, that alone or accompanied by other words is made on an instrument for the purpose of ... incurring indorser's liability on the instrument, but regardless of the intent of the signer, a signature and its accompanying words is an indorsement unless the accompanying words, ... or other circumstances unambiguously indicate that the signature was made for a purpose other than indorsement. [UCC 3-204(a).]

Another analogy may be to an accommodation party. An accommodation party is a person who signs an instrument to benefit another party to the instrument and who is not a direct beneficiary of the value obtained for the instrument. An accommodation party "is obligated to pay the instrument in the capacity in which the accommodation party signs" the instrument (i.e., maker, drawer, or surety or guarantor), although certain surety defenses are available to an accommodation party that are not available to the person primarily liable on the instrument.

To protect nonissuers from liability, the roles of the entities whose names appear on a stored-obligation product, as well as any limitation on the liability of such entities, should be fully disclosed to users in the contract terms or system rules associated with the product.

*Contract Terms and Enforceability*

At the time the obligation is created, the issuer of the obligation will likely want to bind the user of the obligation to a number of conditions limiting the manner in which the product can be used. The Task Force understands product promoters intend to rely upon the common law of contract to achieve these limitations. Whether an issuer (either directly or through an agent) can bind or effectively impose these limits on a user depends on a number of factors, including the existence of any legal restrictions on contracting away rights and liabilities and the medium and manner in which the contract was entered into.

It is important to recognize that one of the factors a court would surely consider when deciding whether to enforce a particular contract term is that these products are designed for sale to consumers and not sophisticated commercial counterparties. It would be a significant error of judgment to turn a blind eye to such a commercial reality. Here, we discuss the impact of the medium and manner of contracting on the effectiveness of the technique used to bind the user. Legal limits on the issuer's ability to contract away rights and liabilities are discussed, where appropriate, in other places within this Report.

Some of the new products will use traditional contracting techniques, requiring original signatures of the user on all contracts. If a dispute arises over a specific covenant, there will be a tangible contract to show a judge or jury. Some of the new products, however, may try to establish contractual obligations through unilateral electronic communications. Although the validity of these contracts could be called into question under a statute of frauds because there is no "writing" evidencing the contract and no signatures, contracts for use of stored obligations arguably can be performed within one year.

Under most statutes of frauds, these forms of undertakings, even absent a writing, should be enforceable.

Where a writing is required, the use of digital signatures could be explored. Digital signatures use public-key encryption to verify the source of a document. Whether a digital signature will be recognized in a court will likely depend on whether the law of the state where the obligation arose recognizes such signatures. To date, only Utah, Florida, and Washington have comprehensive digital signature laws. Under the digital signature statutes of these three states, a digitally signed document is "as valid, enforceable, and effective as if it had been written on paper." An alternative to the use of digital signatures may be the use of cybernotaries to certify and authenticate computer-based transactions and records. Cybernotaries might be "particularly helpful in ascertaining when an agreement was made," particularly given that the time and date can be easily altered in computer messages.

Until there is an established methodology for verifying computer contracts, it will be difficult to conclude with certainty that an electronic contract will be enforceable under the existing rules of evidence and contracts. On the other hand, if a court were faced with a plaintiff seeking to escape the burdens of an electronically communicated contract through a legal technicality, we believe the court would uphold the contract. If an issuer of a particular product is concerned that the rules regarding computer contracts as applicable to its product are not sufficiently certain, the issuer might consider eliminating the uncertainty with paper contracts.

Alternatively, the issuer of a stored obligation product may include a statement on or with the product itself (such as on the back of a stored-value card, on product wrappers, or on a computer screen) that sets out or otherwise references the full terms and conditions that govern the products. For example, an issuer could include a statement that the use of its stored obligation product is "governed by the terms and conditions of Issuer/Customer Agreement, a written copy of which is available by contacting Issuer by [insert instructions to contact the Issuer]." This type of disclosure has the benefit of informing customers that certain terms and conditions apply to the use of the stored obligations but not requiring a paper disclosure to accompany the storage device.

Because the user of a new payment product will usually be unable to negotiate the terms of the agreement controlling its use, there is also an issue as to whether a court would enforce specific provisions of the contract if a user objects to a particular provision. Courts may elect to give issuers wide latitude with respect to these agreements, as they currently give to banks with respect to deposit agreements, recognizing that stability and predictability of the payments system is an overriding public policy concern. The Task Force suggests that facts and circumstances will again affect the resolution of this type of dispute. The more an issuer makes the terms and conditions clear and understandable to the purchaser of a product prior to the product's use, the more likely it will be that contract terms will be upheld.

A related question is whether the issuer may amend the agreement unilaterally. This right to amend is currently claimed by credit card issuers and by banks in deposit agreements. As a general rule, however, contract law does not permit unilateral amendment of a bilateral agreement with respect to an obligation already incurred. This means unilateral amendments will usually be given only prospective

effect. Accordingly, for issuers to be able to enforce amendments, issuers must be able to identify and communicate any changes in rights arising from an amendment. Absent some restriction on the issuer's right to unilaterally change the terms of the agreement, each request by a card user to obtain obligations or redeem obligations could be viewed as a new offer to contract.

Some of the terms an issuer may want to consider for its new product are discussed below.

*Term/Date*. — Some of the products being developed anticipate a date after which the stored obligation, i.e., the claim, will no longer be considered a valid claim. This could be accomplished if the issuer is able to deactivate a storage device after a certain point in time. In such circumstances, the claim on the storage device will no longer be transferable. The obligation stored on the device, however, may still be valid with respect to the issuer. A user holding an expired storage device may be entitled to return the storage device to the issuer and be repaid the amount of the stored obligations or have them transferred from the old device to a new device. A transfer would renew the transferability feature that is the key to the product's utility.

This type of rule of return and transfer is currently used by credit card and ATM card issuers, primarily for security purposes. Such a rule may also be important for smart cards if developers intend to upgrade the card's technology and security features regularly. In addition to the expiration of the storage device, it is also conceivable the obligations stored on the device will become unenforceable or nontransferable after a period of time. Such action could be effected either by agreement or by operation of some statute of limitations.

Both the potential for expiration of the claim embedded in a storage device and for cancellation of the device itself create a number of questions for issuers as well as users of such products. If the issuer is not obligated to honor its obligation after a certain point, how is that point measured--i.e., is there an accrual date on the storage device? If the card or other storage device is reloadable with new "claims," when do the different obligations resident in the device expire--should there be a first-in, first-out methodology? Will the technology used to develop the new products allow a reloadable storage device to invalidate only certain obligations on the device? What happens to an obligation that is about to expire when it is transferred to another person? Is there some type of implied warranty the obligation will remain transferrable for a reasonable period of time?

If a stored obligation (or storage device) will expire after a certain point in time, whether by operation of statute, regulation or system rules, the Task Force believes the terms and conditions under which the obligation (or storage device) expires should be conspicuously disclosed to the purchaser or any transferee. Disclosure could be effected by making information available in a meaningful and timely manner.

*Transferability of the Storage Device*. — Although the developers of the new payment products may not anticipate the physical transfer of the storage device (distinguishing the conduct from transferring the stored obligation) as the means of satisfying monetary obligations, some of the storage devices will, due to their portability, be suitable for such purposes. Consider a card embedded with a $100 stored obligation. A payor may transfer the obligation from the card or simply hand over the card

itself because the card "carries" the obligation. From a legal perspective, will the difference in the method of transfer result in a difference in rights and liabilities? Is the former method a transfer of a claim and the latter method a transfer of goods (with an embedded claim)?

For these types of products, there may be a question as to whether the storage devices should indicate whether they are transferable. The issuer of stored obligations may have valid business reasons for deciding that a storage device is transferable. For example, an issuer may market a stored-value card primarily as a gift card. An issuer may, however, have valid business reasons for restricting transferability. It will, for example, be necessary to limit transferability of devices that offer the card user certain cobranding features (such as frequent flyer miles) that link the use of a card or other device to a particular individual.

A fundamental principle of commercial law is that a property interest, such as a stored obligation contained in a storage device, is freely assignable. The stored obligation may be assigned in various ways, including the transfer of the storage device itself. To preclude effectively that method of assignment, the storage devices should clearly disclose the restraint on alienation so the potential user of the device will be on notice that the device is nontransferable (as distinct from the claims embedded in the device). Counsel will, however, want to consider carefully the costs and benefits of such a decision.

Rendering a device nontransferable may provide the issuer with a defense should it be sued for refusing to honor an obligation where the storage device has been used by someone other than the person to whom the device was originally issued. On the other hand, by rendering the device nontransferable, the issuer will make its product less like a cash substitute. Of course, the rule with respect to lost cash, as a practical matter, is summarized in the children's nursery rhyme: "finders keepers, losers weepers." If no one other than the person to whom the device was originally issued has the right to use the storage device, however, the use of a lost storage device should be ineffective.

Issuers should remain mindful that, even if the storage device contains a statement that it is nontransferable (or if such a clause was in a contract between the issuer of the storage device and the user of the device), a court may still conclude the issuer waived its right to rely on the restraint on alienation of the storage device. If the issuer has a practice of settling with everyone who presents an obligation for payment and makes no attempt to police the restraint on the alienation of the device from the original user, then this contention might have some force. Because the design of the device (i.e., the ability to separate information on the device from the device itself) may not permit the issuer to stop the storage device from being transferred, the issuer may not be able to effectively enforce this contractual provision.

## TRANSFER OF THE OBLIGATION

Once a stored obligation is loaded onto a storage device, the purchaser of the obligation may transfer it, or a part of it, to other users. An analogy to microbiology is useful here because, in concept, the obligation divides into several, smaller obligations which the user can transfer to make purchases. Suppose, for example, that A does not acquire a ticket to a Dream Team game but instead acquires

baseball hats from ten different professional baseball teams. Suppose that A makes his ten individual acquisitions with a stored-value card issued by NationsBank, and the card contains an original obligation in the sum of $100. At this point in time, before the hats are purchased, the stored obligation, in legal terms, represents a single debt of NationsBank to A in the amount of $100.

A purchases his hats from Sellers 1 through 10 and the hats cost $10 each. When all ten of A's purchases are completed, the original obligation of NationsBank to pay $100 to A will have been entirely discharged. In its place, when the ten hat sales are effected, there will be ten obligations of NationsBank to pay $10 to Sellers 1 through 10 (see Figure 1). Note what has changed here. NationsBank's balance sheet remains the same; it had a $100 liability before and it has a $100 liability afterward. The creditor has changed from A to Sellers 1 through 10. As for the asset side of the balance sheet of Sellers 1 through 10, they will each have reduced inventory and substituted a "due from" NationsBank. This illustrates the divisibility feature of the new products; an original claim of A on NationsBank divides into ten claims because of the way the device is used. Of course, the overall magnitude of the liability from the perspective of NationsBank remains at $100.

*How is Transfer Accomplished?*

To determine liability for risk of loss during transmission and to pinpoint the time at which the underlying obligation of the payor-user is either suspended or discharged, it is necessary to determine when the transfer of a stored obligation is completed. It appears to the Task Force that one of two basic rules might be adopted to determine when a transfer is completed. The first rule would focus on objective facts, namely the steps taken by the payor-user to effect the transfer. The steps might be as simple as placing a stored-value card in a slot or pressing a button on a computer, or might involve additional steps, including the entry of a PIN or confirmation of the amount to be transferred from the card or computer. When those steps are completed, the obligation would be considered transferred. This would be roughly analogous to the rule in revised Article 5 that a letter of credit is issued and enforceable when "the issuer sends or otherwise transmits."

The second rule would focus on the receipt of payment by the payeeuser. Under this rule, the transaction would be complete only when the payee-user's hardware acknowledges the transfer has occurred. This is roughly equivalent to the rule for cash or wire transfers. Payment is effected when cash is received. In the same way, the underlying obligation of an originator of a wire transfer is discharged when the transfer is accepted by the beneficiary's bank, not when a payment order intended to carry out the direction of the originator is sent by the originating bank. Of course, in almost all cases, the two rules will produce the same result. It is conceivable, however, that a malfunction during the transmission process could produce a situation in which the payor-user's stored-value card or other storage device reflects that the obligation has been transferred, but the person ostensibly receiving the stored obligation actually receives no value. Because of some type of malfunction, what appears to have happened has not, in fact, happened.

The Task Force believes, as between these two rules, the rule focusing on evidence of receipt of payment and not evidence of transmission is the better rule. A court's willingness to enforce the transaction between the transferor and the transferee is likely to depend on whether the method of

transfer is reasonable. Whether a method of transfer is reasonable may depend, in part, on whether the security procedures used to effect the transfer are themselves commercially reasonable. Because the new payment products use security procedures designed to test authenticity (and also divisibility and amount) during the transfer process but after the payor-user effects the transaction, a transfer should not be deemed to be complete before the security procedures are used.

*The Security Procedure*. — Many of the new payment products will rely on the tamper-resistance of the storage device as well as sophisticated cryptography and other measures to ensure the authenticity and integrity of the devices, data, and communications used in the transfer of stored obligations. Generally, all of the proposed open-system products rely on some form of public and private key encryption, digital signatures, hash functions, and/or message authentication codes.

Cryptography can be used to authenticate the devices used in a stored obligation transaction. Before a transfer of a stored obligation can be accomplished, the storage devices or other devices used to complete the transfer will, in effect, attempt to speak to each other. Only a device with the appropriate cryptographic keys will produce the correct responses, allowing the transfer to proceed.

Encryption is another way cryptography is used in stored obligation products. Encryption transforms intelligible data into unintelligible form. "This is accomplished by using a mathematical algorithm and a 'key' (or keys) to manipulate the data in a complex manner." The resulting enciphered data is unintelligible and will not be acted on unless and until it is appropriately transformed into an intelligible message. For this reason, encrypted data can be transmitted without fear of observation but all of this assumes the implementation is secure and the mathematically based algorithm is sound.

Once encrypted, the original data can be obtained only through a decryption process. This requires the receiver to know the particular key used to encrypt the data. In the case of asymmetric cryptography (i.e., cryptography using public-private key pairs), the sender would encrypt the contents of a message using the receiver's public key. The receiver would decrypt the message using the receiver's private key. For this system to protect data successfully, private keys need to be protected commensurately with the value of the information they protect. Encryption should be distinguished from message authentication codes (MACs). MACs are used to verify the integrity of the message--i.e., if the data has been tampered with during transmission. MACs may involve the use of digital signatures. A digital signature is created electronically by applying the sender's private cryptographic key to the message. The resulting digital signature (a long numeric character string) can be transmitted along with the encrypted message. The signature can be verified by any party using the public key of the signer. If the signature verifies properly, then the verifier has confidence that the data was not modified after being signed. The verifier also knows the identity of the person whose private key was used to sign the message. Digital signatures do not scramble data and therefore do not render data unintelligible. Thus, while digital signature and encryption are often used together, they serve very different functions.

*Authentication*. — As the previous discussion suggests, it is possible that a digital signature can serve as a signature substitute, as well as a means of detecting transaction errors. In the law of bills and notes, for example, the bank's authority to charge the drawer's or the maker's account depends upon whether the instrument bears the authentic signature of the drawer, maker, or person with authority to

bind the drawer or maker. In a world where payment instructions are communicated electronically, there can be no traditional signatures. Consequently, if such types of payment are to be possible, the law must develop, and has developed, a signature substitute. This is one example of how legal reform can facilitate technological change.

Under Article 4A of the U.C.C., the signature substitute for funds transfers is known as a "security procedure." A "security procedure" is a "procedure established by agreement ... for the purpose of (i) verifying that a payment order ... is that of the customer, or (ii) detecting error in the ... payment order." Given that a security procedure under Article 4A of the U.C.C. serves almost identical purposes as a digital signature and cryptography in the world of the new payment products, it is instructive to consider how an Article 4A security procedure is used to authenticate a payment order.

A payment order will be determined to be authentic under Article 4A of the U.C.C. if: (i) the security procedure used to authenticate the order is a "commercially reasonable method of providing security against unauthorized payment orders, and (ii) the [receiving] bank proves that it accepted the payment order in good faith and in compliance with the security procedure and any written agreement or instruction of the customer restricting acceptance." Whether the security procedure is commercially reasonable is a question of law. The court is required to consider: (i) "the circumstances of the customer known to the bank, including the size, type, and frequency of payment orders normally issued by the customer ..., [(ii)] alternative security procedures offered [by the bank] to the customer, and [(iii)] security procedures in general use by customers and receiving banks similarly situated." Similar factors are likely to be considered by a court when determining whether a user of the new payment products is bound by a transfer effected with the user's storage device.

Because these transfers involve consumers, a court might consider the provisions of the Electronic Funds Transfer Act (EFTA) as an indication of how Congress would apply this reasonableness test. Under the EFTA, a consumer is liable

> for any unauthorized electronic funds transfer involving the account of such consumer only if the card or other meanas [sic] of access utilized for such transfer was an accepted card or other means of access and if the issuer of such card, code, or other means of access has provided a means whereby the user of such card, code, or other means of access can be identified as the person authorized to use it, such as by signature, photograph, or fingerprint or by electronic or mechanical confirmation. [§1693g(a).]

In the world of stored obligation products, this identification occurs primarily through the use of cryptography and other security protocols used during the transfer process.

*Authorized Transfers Completed Erroneously*. — In our Olympic games example, A transfers $100 worth of stored obligations to Sellers 1 through 10 by the use of a stored-value card. Typically, this will occur when A's stored-value card is inserted into a storage device at the point of sale and for each of the ten Sellers, A's original claim of $100 against NationsBank has been reduced by $10, until the amount of the claim was zero. The "smart card" stored-value product is essentially a mini-computer loaded with the security programs of the system including the needed cryptography to protect data (stored obligations) and messages and authentication devices required to transfer stored obligations

from the buyer's card to the seller's storage device. In our example, assume that A's smart card also allows A to use a PIN code to lock and unlock the card, thereby assuring only A can use the card.

When A initiates a transfer of $10 of stored obligation to Seller 1, the security procedures used by the system are supposed to ensure that both the card and the card reading device are valid and that only $10 of the original obligation has passed from A to Seller 1. There are at least two ways in which this system might go awry. First, both A and Seller 1 might, in all innocence, intend only a $10 transfer, but Seller 1's system may improperly reflect that a different amount, such as $100, has actually been transferred. Meanwhile, A's stored-value card would reflect that only $10 has been transferred, leaving a balance due from NationsBank of $90. In the second circumstance, A might be aware that a malfunction in his card or deliberate tampering on A's part, causes the card to convert every $10 obligation into a $100 obligation upon transfer. A, owing Seller 1 the $100, and knowing that a swipe through a merchant's reader will debit the original obligation in the amount of only $10, uses the card to transfer a $100 claim against the issuer to Seller 1. In both of these cases, the original obligation has been manipulated at the point of transfer to create new liabilities for which the issuer received no consideration.

This potential problem, referred to in this Report as "spawning," is a function of the product and the technology: a traveler's check may be counterfeited but it has never been known to duplicate itself. The important question here is whether the issuer will be liable on the spawned obligation. Assuming that the erroneous transfer could be traced back to the seller, under general contract principles, the issuer would not be liable to the seller for $100 in the first example--the seller gave no consideration for the $100 transfer. An appropriate analogy would be to an altered instrument, under Article 3 of the U.C.C., where the issuer would only be obligated according to the tenor of the original obligation. In this case, the original debt owed would be $10.

The second scenario is more difficult. There, the seller gave $100 in value and received what it reasonably believed to be a valid $100 obligation. The Task Force believes the better result, in this case, absent an enforceable system rule or private contract term, would be for the issuer to be held responsible for the entire obligation, on the grounds that the issuer controls the technology used to detect error and the seller is relying reasonably on the security and reliability of the system when accepting stored obligations. Of course, the issuer should have common law causes of action against A for fraud and perhaps conversion, as well as rights under other law (tort, implied contract, or the like) against other entities involved in the product development and distribution.

*Finality*

To assess the risk of participating in these new payments systems, potential participants in the system will need to understand the legal consequences which result from an effective transfer of a stored obligation in the system. One question will surely relate to the $10 obligation on the part of A to pay Seller 1 for the hat. Once a stored obligation in the amount of $10 has been effectively transferred from A to Sellers 1 through 10, are the monetary obligations between A, the original user, and Sellers 1 through 10, the new users, discharged? Let us consider the importance of this question.

Suppose the issuer of the stored obligation is Big Bank. Suppose further that Big Bank becomes insolvent and is closed by its primary supervisor. Big Bank never discharges the ten individual claims of Sellers 1 through 10 and they are repudiated by the Big Bank receiver. Can each of the Sellers replevy the hats? Can each of the Sellers require A to pay them again (perhaps this time they will insist on federal reserve notes)? These issues all fall under the heading of "finality."

If the rule we apply to the stored obligation is like the rule we apply to cash transactions, the $10 obligation of A to the Sellers would be discharged when the stored obligation is effectively transferred from A to the Sellers. In the event the issuer refused to pay the claim associated with its stored obligations upon demand, the Sellers would bear any resulting loss. They could not replevy the hats and they would not be entitled to another payment from A. Their remedy would be to claim against Big Bank's receiver, most likely the FDIC, if the issuer was a bank, or a bankruptcy trustee, if the issuer was not a bank.

If a court were to apply to the stored obligation the rules that apply when payment is effected by a personal check, however, the rights and liabilities would line up in a very different fashion. First, the Sellers would have no lawful claim against Big Bank. Under the U.C.C., the payee on a personal check has no claim against a drawee bank which dishonors and returns a presented check before the midnight deadline. The payee's rights are to sue the drawer and any endorser on the instrument or on the underlying obligation. Second, the underlying monetary obligation between A and the Sellers would not be automatically discharged. Assuming that our ten Sellers had each taken a personal check payable to their order in the sum of $10, the ten $10 debts incurred between A and the Sellers at the time the caps were delivered would be suspended pro tanto until the checks were finally paid. Applying the check analogy to the same sales transactions done with stored obligations, only final payment would result in the discharge of the indebtedness incurred with respect to the hat purchases between A and the Sellers. If the claim associated with the stored obligations were dishonored by the issuer, A would need to pay again.

Alternatively, acceptance of a stored obligation could be treated like the acceptance of a cashier's check made payable to the bearer. Here, unlike the case of a personal check, the payee has a legal claim on the instrument against the drawee if it should be dishonored and returned. If the Sellers were to accept a cashier's check drawn on Big Bank as payment for the $10 hats, A's $10 debt to each of the Sellers would be discharged. Any indorsement liability of A would remain, although the likelihood of such liability against A would be small as no indorsement is necessary or need be inferred for a bearer instrument. Thereafter, the Sellers could look only to Big Bank for payment. If Big Bank failed and the cashier's check were dishonored, absent indorsement liability on the part of A, the Sellers would bear the loss. The same result would be reached if a stored obligation were treated as a traveler's check.

Finally, a stored obligation might be deemed to be "goods" under Article 2 of the U.C.C., making the exchange of the obligation for the hat a simple barter transaction. Under Article 2 of the U.C.C., if the issuer fails to honor the stored obligation, the Sellers would have the right to replevy the hats from A. If this were not possible, the Sellers could bring an action against A for the undischarged obligation

of A to pay them each $10. Thus, under Article 2 of the U.C.C., A's monetary obligation to the Sellers would not be discharged until the issuer honors the obligation.

Of course, another model that a court might wish to adopt would be the system rules governing credit and debit card transactions. These rules, which have developed over the past thirty years, govern payments involving cardholders, merchants, and financial institutions. Although the ultimate obligor in a credit or debit card transaction (the consumer) may differ from the ultimate obligor in a stored-obligation transaction (the issuer), many expect that the rules developed for stored-obligation products will resemble the rules for credit and debit cards. The widespread acceptance of card-based payments for most consumer transactions could lead a court to use these rules as backstop rules for stored-obligation products. If the hat transactions were authorized under credit card association rules, the monetary obligation of A would be discharged upon the delivery by A to each Seller of a properly signed sales draft. Each Seller would have a claim against Big Bank as issuer of the card. In the event the issuer was insolvent and unable to pay its stored obligations upon demand, the other financial institution members of the card association to which Big Bank belonged collectively would bear the responsibility for paying the Sellers.

It should be apparent from this discussion that the analogy selected has important consequences for rights and liabilities. Based on the expectations of the parties, the Task Force believes that a court would most likely fashion a rule such as that governing cashier's checks to address discharge absent an enforceable contract provision. There is no question there is credit risk in the hat purchase transaction; the question is where the risk should be allocated if the allocation cannot be done effectively by contract. The cash analogy does not seem to fit because, unlike our example, there is virtually no credit risk with a claim against the United States. The check analogy is also imperfect because the Seller probably does not regard A as his debtor; the Seller probably assumes that he will never see A again. The new payment products are not instructions to a bank from a drawer to pay (a check) but rather are more like promises of the issuer to pay (a note) upon demand. The liability of the drawer of a cashier's check is treated as being the same as that of the maker of a note, rather than that of the drawer of a check.

The Task Force does not believe an analogy either to Article 2 or Article 4A of the U.C.C. is appropriate. As noted above, if the new payment products are treated like cashier's checks, when a user transfers all or part of the stored obligation to another user, any underlying monetary obligation of the transferor to the transferee will be discharged in the amount of the transferred stored obligation.

Uncertainty with respect to the issue of finality could fetter the development of new payment products. The designers of these products need more than an "it-could-be-this-or-it-could-be-that" type of answer. They need to know the rule: does a transfer of stored value result in a final payment or a provisional payment? Thus, the Task Force recommends that the proponent of any new payment product attempt to provide a clear set of rules governing finality and discharge in the contracts or system rules between the issuer and the users. This approach is consistent with the approach used for credit and debit cards. Although not free from doubt, the Task Force believes such a contract provision would be upheld so long as the provision is clearly disclosed to the users of the product.

This discharge rule might, for example, provide that, when a merchant accepts stored obligations from a user, the acceptance of the stored obligations at the merchant's terminal represents a complete and final discharge of the user's monetary obligation to the merchant. As a practical matter, however, a contract or system rule providing that payments are provisional and subject to the risk of collection may be of little value if the payment product does not ensure an audit trail. In such systems, there likely will be no feasible method to exercise what is analogous to a charge-back right on a dishonored check. Once a transaction has taken place, it would be impossible to identify the party who transferred the stored obligation to a merchant. Thus, in our example, if Seller 5 learned that the issuer would not honor the $10 obligation transferred from A's stored-value card, Seller 5 may not be able to identify A as the party against whom it should assert its charge-back right. A likely will have gone off long ago, wearing that nice, new baseball hat. The fact that A's obligation to Seller 5 was not discharged would give Seller 5 a right without a remedy. As a result, any offeror of a product with a rule of discharge subject to collection must see that the chain of payment is appropriately auditable. . . .

*Liability for Damages for Transfer Failure Due to Technology*

As previously set forth, the Task Force believes a transfer of a stored obligation is completed upon receipt, meaning the obligation is available for the transferee to redeem or to subsequently transfer for its own commercial purposes. Because technology will likely be needed to effect a transfer, rather than some human action such as the signing of an endorsement, there is the possibility the technology will malfunction and the attempted transfer will be frustrated. This frustration likely will be inconsistent with representations made about the product's performance and likely will not be anticipated by the parties. If a transfer fails because the technology needed to effect the transfer does not work, who is liable and what is the measure of damages?

The Task Force believes a court would likely apportion damages based on the ownership or sponsorship of the technology which causes the failure of the attempted transfer. Assume, for example, the transfer involves a user's personal computer. If the user failed to pay the electric bill that month and, as a result, the electricity is turned off and the computer cannot be used to execute the transaction, the user would be responsible for whatever damages were sustained. If, on the other hand, the issuer's equipment malfunctions (e.g., a card reader causes a stored obligation to be erased rather than transferred), then the issuer should be liable for damages sustained from that type of execution failure. Similarly, liability for damages resulting from a latent defect in the technology provided to all users of a payment product should be borne by the issuer. This could occur if there is a virus in the software that operates the product at the time the software is distributed.

The above rules would probably not apply in force majeure situations. Consistent with the EFTA, Article 4 of the U.C.C., and the Model Funds Transfer Services Agreement and Commentary, when execution failure is caused by the interruption of communication or computer facilities or the failure of equipment, if such interruption or failure was beyond the control of the party relying on the interruption or failure to excuse performance and the party exercised such diligence as the circumstances warranted, the time for completing the transfer of a stored obligation should be extended.

*Measure of Damages Where Transferor or Transferee is Liable*. — Determining the appropriate measure of damages is perhaps even more important than determining who is liable. As between the transferor and the transferee, the Task Force believes the general provision governing remedies in Article 1 of the U.C.C. should apply. Section 1-106 suggests damages should be set "to the end that the aggrieved party may be put in as good a position as if the other party had fully performed." The general rule is subject to a caveat that "neither consequential or special nor penal damages may be had except as specifically provided in this Act or by other rule of law."

It is not, however, clear whether a specific provision of the U.C.C. will apply to this situation and one might argue that the "other law" of remedies for breach of contract, the Restatement (Second) of Contracts (Restatement), authorizes a recovery of consequential damages. If this is accurate, a non-breaching party may recover lost profits--profits not realized because of the breach--which are measured by the difference in the market value of the contract (or the cost of performance) and the contract price. The nonbreaching party may even be entitled to consequential losses, including personal or property damages resulting from defective performance. Consequential damages are usually awarded, however, only if they are the natural and proximate result of the breach and they are within the contemplation of the parties at the time the contract was executed.

Under the approach in the Restatement, punitive damages are not recoverable unless the breach is also a tort for which punitive damages are recoverable. Specific performance is an available remedy only when a monetary award is not adequate. Finally, the nonbreaching party has a responsibility to minimize damages and any damage award is reduced by any losses that are actually avoided or could have been avoided without undue risk or burden.

*Measure of Damages Where Issuer Liable*. — If the issuer is liable for the failed transaction, the measure of damages for execution failure, either due to the failure of a storage device or to the software or hardware provided by the issuer, could be derived from the measure used where there is breach of an implied warranty of merchantability. The application of this measure will depend on whether the contract between the users and the issuer is deemed to be a sales contract. There is a possibility that the contract could be construed as a sale of goods because, for certain products, both hardware and software are provided by the issuer. Article 2 of the U.C.C. defines "goods" as "things ... which are movable at the time of identification to the contract for sale." Some courts have held that user-vendor disputes involving hardware and software sales are "transactions in goods." If a contract combines the sale of goods and the provision of services, the analysis must go deeper and determine whether goods or services predominate.

Even if a court determined that the purchase of a new payment product involves a transaction in "goods," there will still be a question as to whether a "sale" occurred. The storage device and associated hardware and software may be provided to users free of charge. In any event, the issuer can disclaim an implied warranty of merchantability by including a disclaimer in a conspicuous manner in the contract between the issuer and the user.

Notwithstanding the absence of a claim against the issuer for breach of implied warranty of merchantability, the damaged user should still be able to recover from the issuer for breach of the

contract. As noted previously, consequential damages are not usually recoverable unless they are foreseeable. For example, in Evra Corp. v. Swiss Bank Corp., the court considered the extent of a bank's liability for failing to timely execute a wire transfer, the failure of which resulted in the loss of a valuable ship charter. The court concluded that "[e]lectronic funds transfers are not so unusual as to automatically place [sic] a bank on notice of extraordinary consequences if such a transfer goes awry."

As noted in the commentary to Article 4A of the U.C.C., "[i]f Evra means that consequential damages can be imposed if the culpable [issuer of a new payment product] has notice of the particular circumstances giving rise to damages, it does not provide an acceptable solution to the problem of [issuer] liability for consequential damages." Issuers of the new payment products will face an unacceptable risk of loss if a $20 hat purchase can result in unlimited consequential risk. Could a person who was unable to purchase a sequentially numbered commemorative Olympic pin be able to recover damages for emotional pain and suffering if the cause of his inability to buy such a one-of-a-kind commodity was a defective stored-value card? The Task Force members believe such damages should not be recoverable from the issuer.

Still, while the Task Force members may share a common view as to how such a claim should be resolved, there is some doubt whether the preferred outcome is assured. The Task Force believes the liability of the issuer for malfunctioning equipment is an appropriate area for a uniform rule, although a contractual limitation of damages should also be effective. Damages should be limited to principal and interest (the time value of the lost principal Consequential and punitive damages for a failed payment, unless contractually specified, should be unrecoverable.

DISCHARGE AND SETTLEMENT OF THE OBLIGATION

This brings us to the final stage in the life-cycle of a stored obligation-- settlement and discharge. In Figure 1, we illustrated the three stages in an effort to illustrate the unique commercial law issues that arise in each stage.

With respect to the first stage, we discussed the issues associated with the creation of the stored obligation. Here, the key issues are identification of the obligor and authentication of the issued obligation. With respect to the second stage, we discussed the many issues associated with transfer of the obligation. Here, the key issues are the divisibility of the original obligation and the associated issue we characterized with the descriptive term "spawning." We also dealt with the problem of a storage device that does not function as intended--i.e., a stored obligation that cannot be divided or transferred. This type of malfunction will give rise to damages.

With respect to the final stage, we now deal with the situation where our stored obligation has been divided into a number of smaller obligations, and where the system has presumably functioned perfectly. Turning to Figure 1, let us assume this represents diagrammatically our hypothetical case involving the purchase of hats. Our purchaser, A, has succeeded in purchasing ten hats from Sellers 1 through 10. Operationally, Sellers 1 through 10 will have received stored obligations from A's storage device which gives each of them a $10 claim against the issuer of the original obligation sold to A. Now, at this stage of the life cycle, A should have no remaining claim against the issuer; if A still has

the original storage device, the measure of the claim remaining embedded in the device should be zero. If that is not the case, then the device will have malfunctioned and there will be a problem in the nature of spawning.

It is useful at this point to digress and discuss the spawning problem in greater detail. Whether the problem be one of innocent "spawning" or whether it is a problem where a malefactor has found a method of counterfeiting the issuer's obligation so that it is impossible to distinguish an authentically issued obligation from a counterfeit, the problem for the issuer is the same. In commercial terms, what has happened is the liability side of the issuer's balance sheet has multiplied because the aggregate amount of claims against it has multiplied. Holders of these claims must all be considered legitimate (even though some will be users of "counterfeit" or "duplicate" obligations) if the issuer has no means of distinguishing among them. Put differently, if a legitimate claim has become indistinguishable from an illegitimate claim, the obligor may have to pay both classes. This is a natural consequence of the issuer not being able to distinguish a legitimate claimant from an illegitimate claimant.

The asset side of the issuer's balance sheet will, of course, remain the same. Consequently, as claims are presented for payment, the issuer will likely face two successive problems. The first problem will be illiquidity; as holders of claims present themselves and demand settlement, the issuer will find that the number of claimants exceeds all reasonable projections and the issuer will experience a funding problem. If the spawning or counterfeiting reaches a grand scale, the liquidity problem will grow into a solvency problem. In this scenario, there will come a point where the liability side of the issuer's balance sheet has been enlarged past the amount of its capital, with insolvency the sure result.

Of course, if there has been no spawning or counterfeiting, things will proceed in a splendid fashion from the issuer's perspective. Sellers 1 through 10 will be paid a total of $100, the amount of the original obligation. The issuer will have had A's $100 to use for however long it takes Sellers 1 through 10 to present their stored obligations and demand payment. In commercial terms, the users of the stored obligations will have made an interest-free loan to the issuer in the aggregate amount of $100 and those users will have assumed the risk of the issuer's nonpayment of that loan.

This is precisely why the issues of spawning and counterfeiting are commercially important in evaluating these products. If these problems can occur with respect to a particular product, the credit risk to the users may be materially increased.

*Redemption*

Turning a stored obligation into value might be characterized as "redemption." Redemption of a stored obligation occurs when a user of a stored obligation presents the storage device (or the information on a storage device) to the issuer or to an intermediary and requests money in exchange for it. In Figure 1, we show our ten hat sellers--Sellers 1 through 10-- "depositing" their claims with an intermediary institution which makes presentment on their behalf to the issuer. The issuer will most likely respond to such a presentment by crediting an account of the intermediary on its books and not by paying the intermediary with money or an instrument. It will be important for the intermediary and

issuer to know the status of that credit--is it final or is it a "deferred posting" subject to the decision to make final payment?

To illustrate how the process of final or provisional settlement works, let us go back to the specter of counterfeiting and assume the worst-- our issuer is insolvent by reason of the exponential multiplication of the liability side of its balance sheet. Assume that, in Figure 1, our intermediary has given Sellers 1 through 10 a credit of $10 each. When our intermediary learns that the issuer will not pay $100 because it is insolvent, what is likely to happen?

With respect to the relationship between Sellers 1 through 10 and the intermediary, the answer depends on the nature of the settlement made by the intermediary. If the settlement is provisional, this will mean the intermediary can charge the obligation back if, because of insolvency or some other reason, the intermediary does not receive good value from the issuer when presentment is made. If the settlement is final (known in payment system risk analysis as "settlement finality"), then the intermediary will be left with a loss--it will have paid Sellers 1 through 10 for their stored obligations (a total of $100) but will have received nothing from the issuer (or possibly a receiver's certificate or something else that will entitle the intermediary to less than the immediate payment of the full amount due of $100).

With respect to the relationship between the intermediary and the issuer, the analysis is similar. It is likely that the issuer will pay the intermediary by crediting the intermediary's account. This credit might be similar to the settlement on a check that a payor bank makes with the intermediary bank to obtain deferred posting rights. If, within a short time after the credit, the issuer fails, the intermediary has rights similar to an intermediary bank which has not received a final settlement from a payor bank.

In Figure 1, the intermediary presents all of the stored obligations held by Sellers 1 through 10, and should receive $100. When a credit in that amount is made to the account of the intermediary, one might alternatively argue that a "final" payment has been made in the sense that now the original "due to" of $100, which arose at the time the obligation was created by purchasing the $100 stored-obligation card from the issuer, will be discharged. In terms of payment system risk analysis, this is known as "receiver finality." At the point in time of receiver finality, the original "due to" of $100 will be settled or discharged and eliminated from the books of the issuer.

Receiver finality is considered an important concept because it is tied together with the commercial law concept of repose. This concept is used to describe the commercial need to put an end to certain commercial transactions-- they just cannot continue in perpetuity. One excellent example of this is seen in the law associated with checks. When a payor bank makes a final payment of a check, all provisional credits made during the process of check collection "firm up" and cannot be unwound or charged back.

With respect to stored obligation products, it will be important to ascertain whether the credit given by the issuer to an intermediary is analogous to either the provisional settlement made to obtain deferred posting rights or the final payment resulting from a failure to dishonor and return a check before the midnight deadline. In the view of the Task Force, absent an enforceable system rule or contract term, the doctrine of repose warrants that the decision to credit the intermediary's account upon presentment

of the stored obligations be treated like a payor bank's decision to honor a check, i.e., the decision should be deemed a final settlement of the obligation of the issuer to pay.

Another important aspect of settlement concerns what is known as "term structure" risk. The liabilities of the issuer, which are represented by stored obligations, are akin to demand deposit liabilities, meaning they are payable upon demand by the user or an intermediary who is acting as the user's collection agent. The timing of such presentments will be generally predictable, but probably will be affected by things like customer confidence. In most cases, the liabilities will be short term, which we define as less then ninety days from creation to discharge. The assets that offset these liabilities on the balance sheet of the issuer will almost certainly have a different maturity or "structure."

The nature of the stored obligation or stored liability, similar to what banking lawyers would call a "transaction account," is such that it "makes it difficult, if not impossible, to match the maturities of assets and liabilities, particularly in a contemporary setting in which ... holdings of liquid assets have shrunk and in which some assets, traditionally considered as liquid, may not, in fact, be all that liquid." In the event of bad market news about a particular issuer, users of stored obligations might become alarmed about the credit risk of the issuer and rush to redeem any value that is stored within their devices. If the cash originally received when these obligations were issued has been placed in some illiquid investment (assume the issuer makes a five-year car loan), the issuer will experience term structure risk.

Bankers have recognized this problem for years and understand that the "resulting mismatch of the maturities of assets and liabilities makes banks particularly vulnerable to sudden drains on deposits that can jeopardize their solvency." For this reason, banks are required to adopt policies and procedures to manage liquidity risk and have direct access to the lender of last resort (i.e., the Federal Reserve's discount window) to assist them in controlling term structure risk. Where the issuer of stored obligations is not an entity with access to the discount window, some alternative means of addressing term structure risk would seem prudent. One good example of a similarly situated institution without discount window access may be seen in money market mutual funds (MMMF's) issued by nonbanks. To deal with term structure risk, some of these MMMF's have obtained private insurance. Others have backup lines of credit, to be drawn down in situations of illiquidity.

*Insolvency*

To illustrate some of the commercial law issues associated with the issuer's insolvency, let us return again to Figure 1 and assume that a credit of $10 has been posted to each of the Seller's accounts with the intermediary. After presentment by the intermediary but before final payment by the issuer, the issuer becomes insolvent. We assume the intermediary will not charge-back the Sellers. Let us further assume this insolvency is of the garden variety and does not relate to the unique problems of spawning or counterfeiting.

The extent of the intermediary's loss will depend on two things: (i) the manner in which the issuer held the funds used to purchase the original $100 stored obligation and (ii) the existence of some other entity or entities that could be held accountable for the $100 "due to" the intermediary. If the funds used

to purchase the original obligation are held in an insured account for the benefit of holders of stored obligations, then the holders may be guaranteed some amount of money. If the funds are held in a fiduciary or trust account for the benefit of the users of the stored obligations, the issuer's creditors may not be able to reach those funds. Absent an insured or fiduciary account, however, the intermediary, as a general creditor of the issuer, probably will not recover a full $100. This is particularly true where the issuer is an FDIC-insured bank and its insolvency is governed by a depositor preference statute.

If the intermediary cannot recover from the issuer's estate, it is likely the intermediary will look to other entities associated with the payment product. For example, the new Visa product bears the name of Visa as well as the issuing bank. If the issuer fails, the intermediary holding a stored obligation that was embedded in the issuing bank's card might look to Visa to redeem the stored obligation. In the Mondex system, there is a single originator of stored obligations. The originator sells the stored obligations to member banks who, in turn, transfer the stored obligations to users such as A in our hypothetical case. A consumer purchaser of Mondex obligations may not even know the identity of the issuer. If the issuer becomes insolvent, the intermediary might try to redeem the stored obligation from the other member banks in the Mondex system.

In systems that have multiple issuers, when one issuer fails, who should bear the loss as between the users of the stored obligations and the remaining solvent issuers? Assuming for the moment that there are no contractual rules allocating this loss, the loss could be apportioned in a manner similar to the way a settlement failure is addressed in Article 4A of the U.C.C. Section 4A-402 places the insolvency risk of the failure of an intermediary on the person who selected the intermediary. A similar rule could be applied in the context of these new payment products. If, in our example, our Sellers had a choice of two intermediaries, Intermediary 1 or Intermediary 2, and they selected Intermediary 1, then they might have no claim against Intermediary 2 when Intermediary 1 became insolvent. On the other hand, if the Sellers were required by product rules to deposit with Intermediary 1, then, in such a situation, perhaps Intermediary 2 or the Issuer or both should be responsible for "guaranteeing" Intermediary 1's payment of the presented stored obligation.

The Task Force believes the issues of receiver finality and settlement, including risk of insolvency, can be effectively addressed through contracts and system rules. In fact, if a new payment product uses an established funds transfer system such as the automated clearing house system, the existing rules may govern those issues.

## FRAUDULENT OBLIGATIONS

There is always a possibility that someone will try to defraud a party by creating and transferring an obligation that was not issued by the issuer. Who should bear the loss for these fraudulent obligations? First, what does it mean for a stored obligation to be fraudulent? Another way of thinking about this question is what does it mean to have a counterfeit obligation. The obligations stored on the new payment products are represented by electronic data, in some cases stored on specialized hardware. Verification of the obligation is accomplished by means of cryptography and other security measures included in the software and/or hardware used by the product. If the actual data representing an obligation is copied perfectly, it will be, in all respects, indistinguishable from the original information.

Moreover, if the stored obligation is transferred to a third party, it will pass all of the authentication tests required by the issuer of the new payment product. Clearly, if the new payment product does not permit the users to identify a "counterfeit," then the issuer should bear the loss if there are fraudulent and undetectable obligations in circulation.

Some of the new payment products may, however, permit the issuer to identify fraudulent obligations even where the merchant or other user can not. Where there is, in fact, an identifiable counterfeit, the loss can either be borne by the taker of the counterfeit obligation or the issuer. Two examples help illustrate this point.

Suppose a bank teller at Bank A is tricked into accepting an extremely poor quality counterfeit $100 federal reserve note. No one today seriously disputes that it is wholly appropriate for a federal reserve bank, which grants credit to Bank A for a deposit containing the poor quality counterfeit, to charge it back upon discovery. Similarly, if one of the Sellers in our hypothetical case took a plain piece of plastic from A and merely claimed it contained an embedded $10 stored obligation, no one would dispute that such a seller has no entitlement to be paid $10 if all he or she received was a piece of waste-plastic.

But these extreme cases are easy. The harder cases are presented when the merchant/seller has some form of equipment that enables him to test the authenticity of the device and its data (including the stored obligation) and the merchant/seller reasonably relies on a test result which says, in effect, "This is an authentic stored obligation." If the implied message is false and the merchant/seller has complied with the terms and conditions on acceptance of stored obligations, the Task Force believes the issuer should assume the loss for these counterfeit obligations for two reasons. First, while the issuer may know at settlement time that a counterfeit has been created, the issuer may not be able to ascertain which of the identical obligations was the true obligation issued by the issuer. As a result, if liability for counterfeits is placed on the transferees of the obligations, the first transferee to redeem the obligation will redeem purely by luck the true obligation; the remaining users of identical obligations will, by reason of bad timing, hold counterfeits. This rule results in a race to the issuer to ensure that the merchant does not "lose out" to counterfeits. Similarly, a computer hacker might capture a copy of an obligation online and race to redeem the obligation before the true owner has a chance to redeem it. In this situation, if liability is placed on the transferees, first served is fraud served.

Second, the issuer is in the best position to protect against counterfeits. The issuer is generally the entity who develops the security protocols that will give the merchant/seller the message: "This stored obligation is authentic." If the issuer is not the entity that developed the security for the payment product, the issuer is likely to be in a direct contractual relationship with the entity that completed the development. It is important to keep in mind, however, under this rule, that a breach in the security that permits counterfeiting could enable a person to create unlimited liability for the issuer.

The above analysis is equally applicable to situations we have called "spawning"--where the technology malfunctions and, as a result, erroneous information about the total amount of the obligation is transmitted. In the view of the Task Force, the catastrophic commercial risks in offering a stored-obligation product are the operational risk that it will accidentally spawn and the fraud risk that the product will be counterfeited. Both of these problems have the potential to yield the same

commercial outcome: issuer illiquidity followed by issuer insolvency. Accordingly, great care and attention needs to be paid to these two problems by purveyors of stored-obligation products. It is also noteworthy that these two problems will likely manifest themselves during the final stage of the stored obligation's life cycle, and threaten the commercial functions of settlement and discharge.

There is a final point to be made here. In the case of a legitimate seller of hats, say Seller 10, he or she likely will accept a stored obligation from a purchaser with no notion whatsoever that there has been a spawning or counterfeiting problem. Perhaps Seller 10 has even taken an authentic stored obligation. Seller 10 will not learn of a credit problem with the issuer until it is too late and there is an insolvency. If the issuer is a bank, this will occur when the primary regulator closes the organization. If the issuer is a nonbank, this will occur when the petition in bankruptcy is filed.

## LOST, STOLEN, DESTROYED, AND DISPUTED TRANSACTIONS

Who will bear the risk for a lost or stolen stored obligation? There are two possible commercial law analogies that could be used to resolve this issue for most of the new payment products. The first analogy would be to federal reserve notes. If a $100 note is lost, stolen, or destroyed, the person who lost the note (or from whom it was stolen or destroyed) will not be able to obtain a replacement from the Federal Reserve. If a check analogy is used, the user would be able to stop payment on the stored obligation provided the stop-payment order was received by the issuer in time to act on it. In addition, the user who has lost possession of the stored obligation would be entitled to enforce the obligation if the user could prove the terms of the obligation and the user's entitlement to it.

A slight variation on the check analogy would be an analogy to a lost, stolen, or destroyed cashier's check. If a cashier's check is lost, stolen, or destroyed, the user who has lost possession of the cashier's check can demand payment from the issuer by filing an affidavit of loss (or theft or destruction, as appropriate) that provides reasonable identification of the check and is received in time for the issuer to act. The demand is enforceable ninety days after the issuance of the check.

There are a number of practical difficulties with adopting the stop-payment approach to some of the new payment products. To stop payment on a lost, stolen, or destroyed obligation, the user who has lost the stored obligation must be able to reasonably identify the obligation. Many of the new, offline payment products will not allow a user to uniquely identify the stored obligation. If the stored obligation cannot be identified, the issuer has no way of distinguishing it when it is presented for redemption and, therefore, cannot act on the stop-payment order. Under either a cash or check analogy, the inability to uniquely identify the obligation will result in the loser bearing the risk of lost, stolen, or destroyed obligations. Returning once again to Figure 1, let us assume that A, after acquiring a stored-value card from the issuer with embedded value of $100, loses the card. A finder, let us call her F, discovers the card and uses it to purchase hats for F's children from Seller's 1 through 10. When the intermediary presents the Sellers' stored obligations totalling $100 for payment, the issuer may have no way to know that this $100 worth of stored obligation all came from the card originally issued to A. The only fair rule in this situation will be "finders keepers" and A is the losing weeper.

Certain new payment products will, at least to some extent, enable someone in A's position to reasonably identify the lost, stolen, or destroyed obligation. For example, some of the stored-value cards will be numbered. If A in our hypothetical case could identify the lost card by number, should A be able to stop payment? As a practical matter, even if A could identify the obligation, the issuer may not be able to stop the transfer of the obligation if our Sellers cannot know, at the point of sale, that the stop-payment order exists. The Sellers must be warned not to deliver the hats to F's ten children.

There may be times, however, when the issuer could stop the transfer. For example, the issuer may be able to deactivate the card; so, when the Sellers swipe it through their readers they are told "This stored obligation is not valid." If the Sellers nonetheless deliver the hats, that risk should be borne by the Sellers. Similarly, for online systems, the issuer may be able to deactivate the obligation itself.

Another consideration must be whether the user who has lost possession of a stored obligation is able to prove to the issuer the total outstanding obligation of the issuer to the user. In Figure 1, assume A loses A's card after the first five hats were acquired from Sellers 1 through 5, and F found it. F then used it to acquire five hats from Sellers 6 through 10. How would the issuer be able to distinguish among these ten sellers, even if it could trace their collective entitlements back to the $100 card sold to A? If the issuer designs a system that would permit a user to stop payment on an obligation, users would have to be instructed to routinely backup the information stored on the storage device to use as proof if loss were to occur, unless the system itself could track individual payments back to specific merchants.

Another problem that could arise if a user is entitled to stop payment on an obligation is the following. Assume that A purchases the hats from Sellers 1 through 10 using uniquely identifiable stored obligations. When A gets the hats home, A discovers that the hats are defective. Before any of the sellers have an opportunity to redeem the stored obligations from the issuer, A directs the issuer to stop payment on the obligations. When the sellers try to redeem the stored obligations from the issuer, the issuer refuses to give good value based on the stop-payment instruction. If A's obligation to pay the sellers is discharged at the time that A transfers the stored obligations to the sellers, the sellers will be left without hats and without the value of the hats for which they bargained. A, meanwhile, will still have ten defective hats.

One way to avoid this outcome would be to interpret the stop-payment rule such that a stop-payment order received after an obligation is transferred is received too late to act on it. This rule could only be applied after the fact; the issuer would have no way of knowing whether a stop-payment instruction is being transmitted before or after a transfer.

The Task Force believes the design of the new payment products will dictate the way in which a court would view the product for stop-payment purposes. A cash analogy will likely be used where the check analogy fails: namely, where the obligations are not individually identifiable and/or it is not possible to provide advance warning to sellers or other transferees who take the obligation in good faith. Counsel should, however, keep in mind that a court might appropriately use the check analogy to the extent that a payment product allows its stored obligations to be individually identified and verified at the time of transfer.

If a court views the obligations like checks for these purposes, the issuer may be prohibited from contracting away a user's right to stop payment. This rule seems to fly in the face of the general principles of the U.C.C., however, which permit modification or elimination of rights unless such contracting out is expressly prohibited by the statute itself. All in all, it would be wise for all issuers to address this question in their contracts or system rules and for issuers developing online, accountable systems to pay particular attention to this issue.

CHOICE-OF-LAW

The Task Force believes the only way for parties involved with these new payments products to protect themselves effectively is by knowing in advance what law will govern the use of these new products. Up until now, this Report has discussed the likely substantive law that could apply to the new payment products. The Report is able to discuss substantive law generally because, to a large extent, state commercial law within the United States is uniform. State law does, however, vary on certain important matters. For example, New York state has not yet adopted the 1990 version of Articles 3 and 4 of the U.C.C. As a result, the analogies to the law governing cashier's checks may not be as clear if a court were to apply New York law. Another important example of nonuniformity is states such as Utah, Florida, and Washington that have digital signature statutes. These laws, if applicable, may result in a determination that a new payment product is, by operation of law, an instrument.

It is, therefore, important to consider which state's law will apply when disputes arise involving the new payment products. Each state can adopt its own rules concerning a conflict of laws. These rules are used by the courts to determine which state's substantive laws should be applied to resolve a dispute between parties with contacts to multiple states. For example, assume in our hypothetical case that A (a resident of New York) uses a stored obligation issued by Issuer (a Delaware corporation, located in Delaware) stored on A's personal computer which is situated in A's home office, to purchase a hat from Seller 1 (headquartered in Utah) over the Internet. When the hat arrives at A's home, it is defective. A contacts Issuer and stops payment on the stored obligation (the agreement between Issuer and A permits A to stop payment). When Seller 1 tries to redeem the obligation from Issuer, Issuer dishonors the request because of the stop-payment order. Seller 1 brings an action against A in a New York court. Whether the New York court will apply New York, Delaware, or Utah law will depend on New York's choice-of-law rules.

There are a number of different approaches to choice-of-law. Under the Restatement (First) of Conflict of Laws, courts tended to apply black and white rules such as the law of the place of contract (for a breach of contract case), the law where the tort occurred, and so on. Under the Restatement (Second) of Conflict of Laws approach, a court would conduct an interest analysis, weighing all of the possible interests of the states and parties involved. The commercial law has, to a large extent, eliminated the uncertainty that results from different choice-of-law rules by adopting uniform choice-of-law provisions in the U.C.C. For example, Article 4 of the U.C.C. provides that the liability of a bank for action or inaction with respect to an instrument handled by it for purposes of presentment, payment, or collection is governed by the law of the place where the bank is located. In the case of action or inaction by or at a branch or separate office of a bank, its liability is governed by the law of

the place where the branch or separate office is located. The obligations of the drawer of an instrument on the instrument, on the other hand, are determined by the law of the state where payment is to be made.

Depending on the issue that the court is trying to resolve, various choice-of-law rules might be appropriate for the new payment products. For example, a choice-of-law rule could look to the situs of the obligation to determine what law applies to disputes involving transfers of the obligation. This raises a question as to where the obligation is located. Is the situs of the obligation the location of the books of the issuer or is it wherever the storage device is located? This question is similar to the question raised in the context of levy and attachment and pledge. A choice-of-law rule could look to the laws of the state where the issuer is located to determine the situs of the issuer's obligations. Where an issuer is located might depend on whether the users established a relationship with a particular branch or whether payments are made from a particular branch or office.

The Task Force anticipates that most of the new payment products will rely on choice-of-law provisions in contracts to establish the law that governs duties and rights of the users and issuers. Generally, courts will apply the law of the state chosen by the parties to govern their contractual rights and duties. If, however, the chosen law has no relationship to the parties or the transaction and there is no other reasonable basis for the parties' choice or if the application of the chosen law would be contrary to a fundamental policy of a state that has a greater interest in the matter, the parties' choice-of-law might not be honored.

Although it might not be necessary, the Task Force believes it would be at least helpful to have a uniform choice-of-law rule, particularly for products designed for national and international use. The rule could allow parties to select the governing law in a contract and provide a default rule where such a contract provision does not exist.

ESCHEAT

Suppose, in our hypothetical case, A purchases a stored-value card containing stored obligations in the sum of $100 from the issuer but, unfortunately for A, A loses the stored-value card. Under the terms of the contract between A and the issuer, A is not entitled to a replacement card. If no one ever finds A's card, who is entitled to the $100 that A gave to the issuer in exchange for the stored-value card and that is reflected on the issuer's balance sheet as a "due to"?

Generally, a state may acquire title to property if, after a number of years, no rightful owner claims the property. This concept, known as escheat, raises both operational and legal issues in the context of stored obligations. The right of a state to escheat property only arises when the property has been abandoned, i.e., no one has claimed the property for a statutorily defined period of time. How can a state determine whether stored obligations have been abandoned? As previously mentioned, some of the new products will uniquely identify each obligation. Thus, as obligations are redeemed from the issuer, the issuer will be able to eliminate that specific obligation from its books. For these products, a state could claim that any obligation that remains on the issuer's books beyond the statutory period has been abandoned and, therefore, is subject to escheat. This rule may be inappropriate, however, for payment

products designed to allow the stored obligations to circulate without returning to the issuer for extended periods. Of course, in our example, if A's stored-value card bears a statement that the obligations stored within it become stale after a specified expiration date, the state can point to a precise time when the obligations can be considered to be abandoned.

If the payment product does not uniquely identify the stored obligations, identifying when an obligation is abandoned will be even more difficult. To begin with, until a user of a stored obligation presents it to the issuer, the issuer does not hold property of any identifiable person. At best, the issuer's books reflect an obligation to a class of persons. Are the funds protected from escheat so long as one obligation is redeemed each year?

The Task Force believes this is an area requiring a uniform rule as to whether stored obligations "due to" a class of users is property that can escheat. If stored obligations can escheat, the Task Force believes that here, like in other areas already identified, the rule on when it can escheat may depend on the characteristics of the specific product. It may be possible to treat some of the new payment products like negotiable instruments on which the issuer is directly liable. Generally, if such an instrument is outstanding for more than five years, the amount held or owing for the payment of the instrument is deemed to be abandoned. The five-year period is measured from the date the instrument was payable or, if payable on demand, the date that the instrument was issued.

An analogy to deposits held by a banking organization may be appropriate for the new products that cannot identify individual obligations if there are accounts specifically designated to hold the funds allocated for redemption. In such a case, it may be possible to argue that any increase or decrease in the accounts negates the state's right to escheat. Regardless of how a stored obligation is characterized for escheat purposes, guidance will have to be provided on how to measure the abandonment period given the differences between stored obligations and other property interests subject to escheat. Such guidance must take into account the fact that issuers or users in some stored-obligation systems may not be able to identify which stored obligations have been abandoned. For systems such as Mondex, which anticipate that stored obligations will circulate without any intervention by the issuer for extended periods of time, there may be no ability to distinguish between stored obligations that have been abandoned and stored obligations that are still in use. For these systems, the rule of escheatment applicable to traditional payment products may have no relevance.

Another issue that arises in the context of escheat is determining which state has a right to the abandoned property. Assume, for example, that A is a resident of New York when A purchased the stored-value card and that the issuer of A's stored-value card is incorporated in Delaware but has its principal place of business in New Jersey. Assume further that, since purchasing the stored-value card, A has moved to Florida and loses the stored-value card while in Florida. To which of these states does the stored obligation escheat?

There is little question that, with respect to tangible property, only the state where the property is located may escheat. Stored obligations are not, however, tangible property--the stored obligation is a claim against the issuer. In Texas v. New Jersey, the U.S. Supreme Court determined that the amount due on a debt of a corporation is subject to escheat by the state of the last known address of the creditor

as shown on the corporation's books. If no such address is listed on the corporation's books, the state of the corporation's domicile may escheat the property. If the amount due on a debt is no longer reflected on the issuer's books, having been paid to a "creditor" who in turn is to pay the true beneficiary, then the stored obligation should escheat to the state where the "creditor" is domiciled.

The above rules do not, however, apply to any amount payable on a money order, traveler's check, or other similar instrument (other than a third-party bank check). Instead, by federal statute, the amount due escheats as follows:

> If the books and records of the banking or financial organization or business association show the State in which ... such instrument was purchased, that State shall be entitled exclusively to escheat ... the sum payable on the instrument, to the extent of that State's power under its own laws to escheat or take custody of such sum; ... If the books and records do not show the State in which ... such instrument was purchased [or if that state is not entitled to escheat under its laws], the State in which the [issuer] has its principal place of business shall be entitled to escheat ... until another State shall demonstrate by written evidence that it is the State of purchase.... [12 USC §2503(1), (2).]

The Task Force believes that a uniform choice-of-law rule for escheat would help to avoid litigation and would not adversely affect the development of the products. The Task Force further believes that the books and records of the entities engaged in issuing stored obligations are unlikely, as a matter of business practice, to show the last known address of purchasers of stored obligations. It is not clear, as between the two remaining alternatives that the current law provides--the state of incorporation of the issuer or the place of purchase of the obligation--which would represent the better rule. Some members of the Task Force noted, however, that the state of incorporation may bear little connection to any aspect of the stored obligation operation. . . .

CONCLUSION

The Task Force does not intend for anything in this Report to be construed as criticism of the new payment products in general, or any one of them in particular. To the contrary, the Task Force is hopeful that this Report will be useful to the designers of these products, and to the companies who will consider whether to market or sell them, in providing a framework that can be used to evaluate commercial law issues that are implicated by the new products. The quality of any payment product will depend in large part on how well these issues are anticipated and resolved.

The Task Force also observes that these products may make the payments mechanism more efficient for consumers and increase consumer choice. The Task Force hopes this Report will help to identify commercial law risks for those users and to any legislative body that might consider providing protection for those consumers.

Finally, the Task Force emphasizes its mandate was to elucidate the commercial law issues associated with these new products. The Task Force has not attempted to identify or resolve the issues that these products might present under other state and federal laws. The Task Force believes, however, that, in many cases, the commercial law issues need to be identified and resolved before these other bodies of law can be intelligently applied. Clarity in the legal rules governing any payment method is

important because it will enable payment system participants to evaluate, control, and appropriately limit their risk. The Task Force hopes this Report represents a meaningful contribution toward that important objective.

**Ann H. Spiotto, *Electronic Bill Payment and Presentment: A Primer*, 57 BUS. LAW. 447 (2001).**

EBPP services involve the collection of information from billers about a consumer's bills and the payment of those bills. In its purest form EBPP is the process used by companies to present bills for payment via the Internet, direct-dial access, touch-tone phone system, wireless device, ATM, or other electronic device and the electronic payment of these bills by consumers through one of these technologies. However, in practice, the term EBPP covers several different variants or models. The model discussed in this Article is provided for consumers under a financial institution's brand at the financial institution's Web site, with the operational and technical support provided by an outside vendor. This is called the "consolidation/aggregation" model and the financial institution is considered to be "hosting" the EBPP consolidation site. Such services are generally provided to the consumer either for free or for a small monthly fee (generally between four dollars and thirteen dollars per month). For purposes of this Article, it is assumed that the EBPP service generally works as follows:

- The consumer receives a bill from a biller either electronically or via traditional means. If a bill is received at the EBPP Web site electronically, the consumer may be notified via e-mail.
- The consumer subsequently logs onto the Web site to review the bill. The consumer then electronically instructs the EBPP provider to pay the amount of the bill or a designated portion of it.
- Typically, the consumer can initiate payment via computer instructions to his EBPP provider regardless of whether the bill is delivered to the Web site. Payments generally can be scheduled up to a year in advance; variable and recurring payments can also be scheduled. The consumer can generally review pending payments at the EBPP Web site and have access to payment history at that Web site.
- The EBPP provider transfers money via the ACH or manual draft out of the consumer's checking or other asset account, credits the consumer's funds into the EBPP provider's own account, and then, if the biller accepts electronic payments, sends payment electronically.
- If the biller cannot be paid electronically, the EBPP provider pays the biller directly with its manual printed check. If a number of the EBPP provider's customers have payments due to such a biller on the same day, the EBPP provider may provide only one check together with a manual listing of the accounts being paid (the "check and list" approach).
- Alternatively, the EBPP provider may print up a draft against the consumer's asset account for the amount owed payable to the biller. That draft, sometimes called a "laser draft," is then mailed to the biller (without the biller provided payment stub) which processes it as any other payment check received unaccompanied by the payment stub.

EBPP has been viewed as a potential blockbuster product of the on-line financial services industry. It has been hyped as the "killer application" enabled by the Internet. Some financial analysts have viewed the EBPP service as very important, since it helps define the customer relationship and because reviewing and paying bills is a time-consuming and hence 'sticky' activity, from the perspective of the Web. Whichever firm is the consumer's choice at which to view and pay bills, can target ads or cross-sell other products while the consumer is reviewing bills.

Recent reviews, however, suggest less positive views of the growth of EBPP services than at earlier points in time. One June 2000 article in the popular press cited to a report from research company Forrester for the proposition that e-pay companies "will bleed money for the next two years and disappear entirely by 2002." Other commentators have confirmed that despite the hype, both billers and consumers have been slow to use EBPP because neither has seen enough desire from the other party, creating a chicken-and-egg conundrum. On-line payments are frequently described today as one of the great unfulfilled hopes of the Internet economy. Presently, the process is perceived as too complicated and expensive for most people, and today the use of electronic bill payments is estimated at less than one percent of all the nation's bill payments. Checks are still the predominant form of consumer bill payment. . . .

Some commentators have concluded that the electronic presentment of bills will be a key driver leading to the electronic payment of bills. When consumer bills are presented electronically by the biller and the consumer initiates payment on-line, most such bills are paid electronically via the ACH. With today's technology, bills may be presented via the Internet, mobile phone, or personal digital assistant; however, most consumers still receive their bills via mail. Today, bill payment is frequently initiated electronically even though the bill is received by the consumer in paper form. Among the problems that have thus far prevented the widespread adoption of on-line bill payment are:

- Many billers are not able to deliver their bills electronically (currently fewer than one percent of bills are distributed as well as paid electronically), and it remains inconvenient for the consumer to have to key payment information into his PC. Some EBPP providers are addressing this problem by using the "scan and pay" or "screen scraping" approach.
- EBPP services are perceived as expensive.
- Many companies are waiting for more on-line customers before spending money to upgrade technology to accept payments electronically and many consumers are waiting until more billers provide bills on-line--the so-called "chicken and egg" conundrum.
- Americans are reluctant to change their banking habits.
- Consumers have on-line security and privacy concerns.

## SIGNIFICANT LAWS APPLICABLE TO EBPP SERVICES

It should be kept in mind that the current financial institution legal and regulatory environment was generally designed for the paper world and brick/mortar branches. While new laws, regulations, and regulatory interpretations dealing with the on-line world have started to surface in the last couple of years, the regulatory and legal environment is obviously subject to additional change and differing interpretations. . . .

Generally, the laws and regulations applicable to a financial institution's products and services will be applicable to the EBPP service, as they are to other products and services offered through cyberbanking means. With cyberbanking, the delivery channel changes, but the laws and regulations generally do not. . . .

Recently, the Federal Reserve Board (FRB) requested public comment on how its regulations may be adapted to on-line banking and lending. The FRB noted that most of the "legislative and regulatory framework that governs banking was developed based on social, cultural, and technological practices that existed before the advent of widespread computer based communications." It indicated that it is trying to assess whether any FRB regulations should be amended in order to facilitate on-line banking. It invited "comment on how particular statutes, regulations, or supervisory policies specifically affect financial institutions and their customers' uses of new technologies."

The legal analysis in this Article is based on the following assumptions: the EBPP service will be offered at a financial institution's home banking Web site, it will be provided under the financial institution's name, and operational support for the service will be outsourced to an EBPP vendor. Both financial institutions and EBPP vendors are referred to in this Article as "EBPP providers." For purposes of this analysis, only EBPP services offered by regulated financial institutions located in the United States and transactions governed by U.S. laws or the laws of the fifty states will be considered. The conclusions expressed assume that the consumer has an established deposit account at a financial institution, that the EBPP service is provided by that financial institution, and that it is just one means of accessing funds on deposit in such account. Additional laws, regulations, and regulatory guidance are applicable to the basic deposit account relationship.

## POWER AND AUTHORIZATION TO OFFER EBPP SERVICES

The threshold legal issue for a financial institution that proposes to offer EBPP services is whether it has the power and authority to do so. The National Banking Act empowers national banks to exercise "all such incidental powers as shall be necessary to carry on the business of banking." In 1997, the Office of the Comptroller of the Currency (OCC) expressly authorized national banks, by regulatory interpretation, to engage in electronic banking stating that "a national bank may perform, provide, or deliver through electronic means and facilities any activity, function, product, or service that it is otherwise authorized to perform, provide, or deliver." A number of OCC approvals indicate that the OCC has been very supportive of national banks providing EBPP services and has had little problem determining that bill payment services are within the permissible realm of the business of banking.

For state financial institutions, power to undertake specific activities generally comes from state laws and the statutes of the state chartering authorities. This power is subject to the restraints that can be imposed by federal law. Federal law currently permits state-chartered financial institutions to engage in any activity that is permissible for national banks as principal. Federal Deposit Insurance Corporation (FDIC) determines that the activity would pose a threat to the insurance fund. Consequently, "OCC precedents on bank-permissible activities generally define the parameters of permissible state bank activities." Additionally, while the statutory scheme pursuant to which the Federal Reserve system operates generally does not provide enabling powers to the financial institutions it regulates, the Federal Reserve has approved electronic banking activities for financial institutions which "precedents provide comfort that the performance of traditional banking activities through electronic means is permissible." In order to determine whether a particular state-chartered financial institution is constrained in the offering of EBPP services, the specific state laws applicable to that institution would need to be reviewed. It is likely that EBPP activities would be permissible unless the applicable state statutory scheme contains a specific prohibition.

Generally, none of the federal banking agencies require prior approval for an existing financial institution to offer EBPP services; however, prior notice is apparently required by the Office of Thrift Supervision (OTS) before a savings and loan association begins offering such services.

STATE LAW APPLICABLE TO THE EBPP PROVIDER'S RELATIONSHIP WITH ITS CONSUMER CUSTOMER

The question of which state's or country's laws control an Internet relationship is still developing. The financial institution's agreement with its customer should clearly specify the state whose laws it determines to be applicable. If a consumer has a deposit account at a brick and mortar financial institution in his state of residence, arranges for EBPP services through that financial institution, and is subject to a customer agreement providing that the laws of the state where the financial institution branch at which the consumer banks is the applicable law, the law of the state specified in the agreement would probably be applicable. Beyond that simple conclusion for a simple fact situation, the answer as to the applicable law may depend on the state in which litigation occurs, the specific laws at issue, and the facts in each particular situation. It is possible that the laws of the consumer's state of residence would control certain aspects of the EBPP service irrespective of the contractual choice of law provision.

As in any situation where a vendor is involved that is providing retail services to consumers in multiple states, the financial institution's counsel should verify that the processes, procedures, and documentation set up by the vendor for the financial institution's customers are in compliance with the appropriate state laws. Simply because the vendor is located in one state is not determinative and is probably not particularly relevant to the issue of whether that state's laws are applicable to the relationship.

In its May 2001 Request for Comments, among the questions that the FRB asked financial institutions to comment on was whether particular aspects of conducting on-line banking activities could benefit from a single set of legal standards that can be applied uniformly nationwide. It also asked

whether there are any inconsistencies between federal and state laws that impede the electronic provision or use of financial products of services.

## LAWS REGULATING THE PROTECTION OF CONSUMERS

Consumers using EBPP systems as described above are protected in various ways and to various extents by the federal Electronic Fund Transfer Act (EFTA) and Regulation E (Reg E), and by state electronic fund transfer laws and regulations (State Laws). The EFTA provides the "basic framework establishing the rights, liabilities, and responsibilities of participants in electronic fund transfer systems." EBPP providers are also covered by various statutory prohibitions against unfair or deceptive practices. The Truth in Lending Act (TILA) and Regulation Z (Reg Z) are not generally applicable to EBPP services such as those described in this article; certain provisions would apply if the consumer was permitted to use a credit card account as the account from which bill payments would be made.

### *EFTA, Reg E, and the Official Staff Commentary on Reg E*

The EFTA establishes the basic rights, liabilities, and responsibilities of consumers who use electronic fund transfer (EFT) services and of financial institutions that offer those services. The primary objective of the EFTA and Reg E is the protection of individual consumers engaged in EFTs. The requirements of EFTA and Reg E are generally applicable to financial institutions which offer EBPP services to their deposit account customers by virtue of the definition of "electronic fund transfer" to mean "any transfer of funds that is initiated through a [] ... computer ... for the purpose of ordering, instructing, or authorizing a financial institution to debit or credit an account." A recent comment added to the Reg E Official Staff Commentary (Commentary) provides explicit guidance on this point stating that, generally, the definition of electronic fund transfer in Reg E covers bill payment services.

The EFTA and Reg E require that consumers receive initial disclosure statements and periodic disclosure statements. They also contain consumer protections limiting the liability of the consumer for unauthorized transactions and requiring financial institutions to investigate and resolve errors. Further requirements are imposed with respect to notification of specified changes in terms and an error resolution notice that must be provided at least annually.

*Dispute Resolution and Liability for Unauthorized Transactions.* One of the questions that may be asked by a consumer who is thinking about enrolling for EBPP services is what are the real live risks in using the service. A simple answer is that the consumer is probably safe from liability for unauthorized transactions; additionally, transaction errors should be corrected. The consumer, however, will not necessarily avoid short-term inconvenience in connection with his financial or bill payment accounts. To date,

> most "live" problems with EBPP have apparently involved errors in executing transactions rather than fraudulent transactions. With respect to these, the financial institution must resolve such problems in accordance with the error resolution requirements of the EFTA and Reg E. Generally, the inconvenience of having one's checking account or relationships with billers disturbed for a period of time due to an error may be a more realistic problem than concerns about its ultimate resolution.

Federal examiners look at how financial institutions handle customer complaints about EFT errors. The financial institution is required to investigate any alleged error or unauthorized transaction and report back to the consumer within ten business days; the financial institution may take up to forty-five days if it provisionally recredits the consumer's account while it continues to investigate. These requirements only apply if the consumer's notification involves a defined "error." In connection with the EBPP product these would generally include: an unauthorized bill payment; an incorrect bill payment; omission of a bill payment from the periodic statement; a computational or bookkeeping error in connection with a bill payment; the incorrect identification of a bill payment; and a request for documentation or additional information with respect to a specific bill payment transaction. The error resolution requirements appear to apply to a bill payment transaction where the consumer is signed up for the bill payment service and initiates the transaction via the computer, even if the bill is paid with a check sent by the EBPP provider to the biller.

One issue frequently raised in connection with the use of "screen scraper" technology is whether the consumer is liable for transactions that are made possible because the screen scraper was given account information (including the consumer's ID and account password) in connection with the sign up for the service. The EBPP model under discussion in this Article renders the question moot since it involves a financial institution offering the EBPP product under its own name at its on-line banking Web site and charging the consumer's asset account at the same financial institution for the EFT transactions. To the extent that unauthorized transactions occur because the consumer provided his password to the EBPP site, the consumer has provided the "secret" information to his own financial institution or its agent. Consequently, the financial institution should obviously be precluded by general principles of estoppel or contributory negligence from asserting against the consumer that he had "authorized" the screen scraper and its or the financial institution's employees to act.

With respect to more generic unauthorized transactions made through an EBPP site that are unrelated to the fact that the consumer disclosed his "secret" information, the financial institution hosting the site (which for purposes of this discussion is also the account holding financial institution) has responsibility to reimburse the consumer. This is, of course, subject to the consumer's responsibility for certain amounts based upon the date notification is given by the consumer. Although the financial institution has legal responsibility to the consumer for unauthorized transactions, after taking care of the consumer, that financial institution may be able to shift the ultimate liability to the outsourcing vendor based upon contractual provisions allocating responsibility.

Simple answers, however, do not necessarily mean that the customer is always made whole--of crucial importance is whether the consumer's claim that a transaction is unauthorized is believed. If the financial institution does not believe that the transaction is unauthorized (and instead concludes that it is "attempted customer fraud" or that it was authorized) it will not reimburse the consumer voluntarily and litigation may be necessary to resolve the factual issue. Additionally, reimbursement may turn on whether the financial institution knows the law and, perhaps more important, whether its customer service staff understands what is legally required.

*Electronic Disclosure.* Recent amendments have been made to Reg E and the Commentary to establish uniform standards for the electronic delivery of Reg E disclosures. These amendments were styled as "Interim Final Rules" and the FRB requested comment from the public (with the comment period ending June 1, 2001).

The amendments set forth the general rule that financial institutions subject to Reg E may provide disclosures electronically provided that they comply with both the requirements set forth in Reg E and the consumer consent requirements of the Electronic Signatures in Global and National Commerce Act (E-SIGN). E-SIGN requires the financial institution to disclose the requirements for accessing and retaining disclosures in electronic format--the consumer must affirmatively consent electronically to electronic delivery (in a manner that demonstrates the ability to access the information electronically). Prior to consenting to the electronic delivery, the consumer must also be presented with a number of "clear and conspicuous" disclosures about the electronic delivery process itself.

Additionally, a financial institution that uses electronic communication to make Reg E disclosures must send the disclosure to the consumer's e-mail (electronic) address or it must make it available at another location (e.g., an Internet Web site) and the financial institution must tell the consumer that the disclosure is available by sending notice to the consumer's e-mail (or postal address) and making it available at the Web site for at least ninety days from the notification date. If a required disclosure transmitted electronically is returned undelivered, the financial institution must take reasonable steps to redeliver it.

A number of the comments provided to the FRB indicated that extremely serious operational issues are raised by the above described notification and redelivery requirements. Based upon these comments, the FRB is considering adjustments to the rules to provide additional flexibility. The amendments were to have had a mandatory effective date of October 1, 2001--by an announcement dated August 3, 2001, the FRB has lifted the mandatory compliance date. It has indicated that institutions may continue to provide electronic disclosures under their existing policies and practices or may follow the amendments until the FRB issues permanent rules.

The new Commentary provisions specifically clarify that E-sign authorizes the use of electronic disclosures; it does not affect any other requirement imposed under Reg E and it does not affect the content or timing of disclosures. Electronic disclosures remain subject to Reg E's format, timing and retainability rules.

*Preemption Under Reg E.* The EFTA preempts inconsistent state requirements. However, requirements are not inconsistent if they are more protective of consumers (e.g., if they specify additional fact patterns as "errors" or provide for lesser consumer liability than EFTA). They are considered to be inconsistent if the state law requires initial or periodic disclosures that are different in content from those required by EFTA except to the extent that they relate to consumer rights granted by state law and not federal law.

*Retention Requirements.* Regulation E requires a financial institution to retain evidence of compliance for not less than two years from the date disclosures are required to be made or action is

required to be taken. That period is extended if notice is received of an enforcement proceeding or investigation by the financial institution's enforcement agency. It is not necessary to retain records that the financial institution has given disclosures to each consumer--the financial institution "need only retain evidence demonstrating that its procedures reasonably ensure the consumer's receipt of required disclosures and documentation." Information required to be retained must be retrievable in usable form. If records are not kept in hard copies, the electronic copies must be kept for the entire term of their retention period and not automatically deleted at some earlier period or rendered meaningless due to system changes and conversions or modifications to form letters.

*State Laws*

Various states have adopted various consumer protection laws that may be applicable to EBPP services. According to one prominent lawyer who has spent many years working with the banking industry and financial electronic commerce:

> State EFTA laws that directly regulate EFT transactions generally follow the model of the Federal EFTA. Typically, these laws generally apply to consumer asset accounts, and do not apply to consumer credit accounts or business accounts. State EFT laws also focus primarily on consumer rights, and provide consumer protections that match, or in some cases exceed, the protections contained in the EFTA. Colorado, Illinois, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Montana, and New Mexico all have enacted EFT statutes of this type. State consumer protections generally include limitations on consumer liability for unauthorized transactions, restrictions on unsolicited issuance of cards or other access devices, and initial and periodic disclosure requirements.

Under the EFTA only state laws that are inconsistent are preempted. A state law is not inconsistent if it is more protective of consumers. If a state law is not preempted by the EFTA, whether a contract's choice of law provision would be enforced to render a state's consumer protection statute ineffective in a specific situation depends upon the particular facts at issue. The determination could turn on the state statutory and common law with respect to enforceability of a choice of law provision in the particular state. It is possible that, irrespective of a choice of law provision in the contract, a state law may be applicable if enforcement of the contractual provision or practice would hurt the consumer and the law in the consumer's state of residence would provide stronger protection for the consumer.

*Unfair and Deceptive Trade Practices Statutes*

Under both federal and state law, it is illegal to engage in unfair or deceptive trade practices. Many practices that a consumer would argue to be misleading or unfair/deceptive (including unwarranted or inaccurate claims in advertising materials) can result in allegations that the statutory prohibitions have been violated. Care should be taken to assure that all Web page data is accurate and should reflect the actual product being offered and the practices of the financial institution.

## MISCELLANEOUS LAWS AND REGULATIONS

*Laws Applicable to ACH Transactions*

To the extent that payments are made by the EBPP provider via the ACH or that funds are removed from the consumer's deposit account via the ACH, then the NACHA Rules governing the ACH, Regulation J, the EFTA, Reg E, and state laws would be applicable to the processing of such transactions and to resolving problems that arise with respect to such processing.

*Bank Service Company Act*

Where a financial institution is providing EBPP services and outsourcing the operations to a third party, the Bank Service Company Act allows the bank regulatory agencies examination authority over such third party. Additionally, the bank is required to notify the Federal agency with examination authority over it of the existence of the relationship within thirty days after the making of the service contract or the performance of the service, whichever is first.

*State Contract Law*

General state contract law principles and statutory provisions govern the contractual relationship between the EBPP provider and its customers.

*State and Federal Criminal Laws*

General state and federal criminal statutes would be applicable in the event of fraud or other misbehaviors by the EBPP provider or by the customer. However, the effectiveness of such laws in regulating EBPP provider or customer behavior may be limited by the willingness of state and federal prosecutors to pursue criminal law violations. The mere possibility that such laws apply does create incentives to act reasonably.

Financial institutions have an obligation to file a Suspicious Activity Report with the appropriate law enforcement agencies and the Financial Crimes Enforcement Network (FinCEN) of the Department of the Treasury whenever known or suspected criminal violations of federal law or a suspicious transaction related to a money laundering activity or a violation of the Bank Secrecy Act is detected. Additionally, financial institutions have an obligation to comply with defined record keeping and reporting requirements with respect to transactions in currency and monetary instruments.

*State Escheat Statutes*

States generally have statutory provisions requiring that unclaimed property be turned over to the state. There will doubtless be funds retained by the EBPP provider in connection with EBPP transactions with respect to which the proper owner cannot be identified or cannot be located. Generally, the state of the consumer's last known address is entitled to escheat the unclaimed property of such person, irrespective of where the EBPP provider is located. An EBPP provider would need to determine whether any basis exists for the position that unclaimed funds are not subject to such laws. If no legitimate basis can be determined, procedures must be implemented by the EBPP provider to assure compliance.

*Fair Credit Reporting Act (FCRA)*

The FCRA imposes requirements on entities that collect, transmit, and use information on consumers for the purpose of making credit and certain other business decisions. Businesses are allowed to gather and use their own experience information in making credit decisions and to share certain aspects of that information with credit reporting agencies. Businesses are also allowed to use information from credit bureaus in making credit and certain other decisions, subject to obligations that are imposed when credit or access to other services or opportunities is denied on the basis of information contained in the credit report.

Each EBPP provider needs to review its procedures and policies and determine whether FCRA is applicable. A major EBPP provider, CheckFree, was sued under FCRA in connection with a credit score that it obtained without the consumer's consent. CheckFree had ordered credit scores on over 1.3 million customers from the Experian credit bureau. The court concluded that because there was a legitimate business transaction initiated by the consumer, CheckFree was not subject to liability under FCRA for obtaining the credit score.

*FDIC Official Advertising Statement*

Every insured depository institution's on-line system top level page, or "home page" is considered by the FDIC to be an advertisement. Consequently any such financial institution should display the official advertising statement ("Member FDIC" or the FDIC symbol) on their home page unless subject to one of the specified exceptions. Further, each subsidiary page of an on-line system that contains an advertisement should display the official advertising statement unless subject to one of the specified exceptions.

*Intellectual Property: Patent Law*

Historically, property rights "have not attached to the infrastructure of exchange." In other words, nobody owned the system of making payments by writing, presenting, and clearing paper checks or the concepts of paying and selling by means of a payment card. With the advent of electronic commerce, however, a large number of patent applications have been filed for systems related to electronic commerce and a large number of very broad electronic commerce patents have been granted.

In the recent past, CheckFree has claimed the patent for an entire system, "a system for use by a service provider to pay bills rendered to a consumer by billing entities." Patents have also been granted in recent years to OnLine Resources & Communications, Inc. and Visa in connection with bill payment systems. When a financial institution proposes to offer EBPP services, the intellectual property status of any information technology that it proposes to implement should be discussed with legal counsel.

*Privacy*

Financial institutions are subject to federal and state laws governing financial privacy. The Right to Financial Privacy Act restricts government access to information in a financial institution's records. Some state privacy laws may have broader coverage than this; specifically, some state laws cover disclosures to any person (not just the government) and have broad definitions of financial records. The Electronic Communications Privacy Act generally prohibits any person or entity from divulging the

contents of an electronic communication while it is in transmission or in electronic storage. The EFTA and Reg E require financial institutions to disclose to consumers the circumstances in the institution's ordinary course of business under which it will disclose information about the consumer's account to third parties. The Gramm-Leach-Bliley Act prohibits a financial institution from disclosing any nonpublic personal information to a non-affiliated third party prior to providing notice of its privacy policies to the consumer. Financial institutions are required (subject to exceptions set out in the applicable regulations) to disclose their privacy policies at the time of establishing a customer relationship with a consumer and at least annually thereafter with respect to: (i) disclosing nonpublic personal information about both customers and former customers and (ii) protecting the nonpublic personal information of consumers.

An institution's failure to honor its own stated privacy policy could constitute a deceptive practice prohibited by section 5 of the Federal Trade Commission Act or under a state's "little FTC Act." Additionally, in some cases, the consumer might have remedies for breach of contract or negligent misrepresentation.

*Regulation D*

Regulation D imposes withdrawal and transfer restrictions on passbook savings and money market deposit accounts (MMDA). "[P]ayments to third parties initiated by a depositor electronically from a personal computer are included as a type of transfer subject to the six transaction limit imposed on passbook savings and MMDA accounts."

*Uniform Commercial Code (U.C.C.)*

If payments are made by the EBPP provider via a "check and list" or "laser check," state law provisions (specifically the U.C.C.) will probably govern the presentment and collection of that check.

REGULATORY GUIDANCE WITH RESPECT TO OFFERING EBPP SERVICES

In recent years, federal regulatory authorities have attempted to identify and assist financial institutions in understanding and managing the risks involved with electronic and Internet banking activities. From a practical standpoint, this guidance is as important to the financial institutions as any law or regulation in that it defines what the federal examiners will be looking at in the examination process. Failure to comply with this guidance may cause regulatory concern that the financial institution is not adequately protecting itself against risks.

GUIDANCE WITH RESPECT TO OUTSOURCING ARRANGEMENTS

With respect to the outsourcing arrangements typically involved when a financial institution is providing EBPP services, federal regulators are concerned that the risk management measures commonly used by a financial institution (e.g. internal controls and procedures) are generally under the direct operational control of the EBPP provider, rather than the financial institution. The financial institution, however, "[b]ears the associated risk of financial loss, reputational damage, or other adverse consequences." Recent guidance from the Federal Financial Institutions Examination Council (FFIEC) clearly states that the boards of directors and senior management of financial institutions are expected

to oversee and manage outsourcing relations. The FFIEC guidance clarifies that the financial institution should have an outsourcing process that includes the following: risk assessment; due diligence in selecting a provider; a written contract that outlines duties, obligations, and responsibilities; and ongoing oversight of the services being provided. Additionally, when the services involve use of the Internet the financial institution must pay attention to maintaining secure systems, detecting intrusions, developing reporting systems, and verifying and authenticating customers. . . . .

Among the areas of factual inquiry that should be considered by a financial institution in doing due diligence prior to entering into a contract are: determination of the vendor's reputation and experience (including the checking of references); thorough understanding of the product; understanding of who will actually perform the work; on-site visit at the EBPP provider's offices and operations center; review of the vendor's financial condition; review of the vendor's disaster recovery plan; and review of the vendor's internal procedures and controls.

The review of a vendor's financial condition can be a somewhat tricky undertaking. It is necessary to ensure the quality and continuity of service and to assure that the vendor can back up his contractual promises and liabilities. If the financial institution determines that its preferred vendor is financially weak, the financial institution must assess the risks and make a reasoned judgment as to whether the vendor will be in business a year or five years from now. It must understand the operational and legal consequences should the vendor go bankrupt or out of business. If the vendor is financially weak, even finely crafted contract provisions may not provide the financial institution with much protection. A financial institution cannot collect a damage award if the vendor has no money or assets with which to pay it. A vendor cannot provide a contractually required level of service if it has no money to pay employees. If the vendor is experiencing financial difficulties and is providing a service that the financial institution's customers value, as a practical matter the financial institution may be forced to invest capital or provide other assistance to keep the vendor in business until an acceptable substitute can be found. The basic question that must be answered is whether the risks of entering into a relationship with a financially weak vendor are worth the benefits that the financial institution thinks it will get from the introduction of a particular product.

Alternatively, if the financial institution does not want to assume the risks, it can attempt to identify a different vendor, build the product internally, or simply pass on offering the service at this time. A basic analysis that should be performed in making this judgment is to plan out how the financial institution will continue to offer the product or to terminate it if the vendor goes out of business. One prime question with respect to EBPP services is how would the financial institution handle getting the customer's electronically delivered bills (or bills that are mailed directly from the biller to the EBPP provider) redirected to the customer or to a substitute vendor should the original EBPP provider go out of business? Additionally, how would the financial institution handle pre-authorized recurring payments? Would the delivery of notice that the EBPP service is being terminated be sufficient to avoid problems with the customer? The financial institution officer responsible for making the decision to offer a new product must keep in mind that hindsight is 20/20; if problems with the vendor materialize, he may be asked to justify the thought process involved in getting into a business relationship with a

financially weak vendor. This can be especially difficult if widespread customer dissatisfaction arises because of termination of the EBPP service.

In connection with this vendor review, a lawyer should be careful to question the idea that it is simple to substitute services and vendors, particularly in the EBPP arena. Contingency planning should be done to pin down exactly how an EBPP vendor could be replaced. In the new Internet world, "plug and chug" strategies for getting into new lines of business have appeared--these strategies are based upon the concept that a financial institution can instantly "plug" in a new service provided by an outsourcer and "chug" along by rolling it out instantly to consumers. The strategies contemplate changing vendors by simply unplugging the old vendor and plugging in a new vendor. While the strategies may sound forward thinking, actual implementation (e.g., unplugging and plugging in with a new vendor) is rarely as easy as a marketer makes it sound. It is not necessarily easy from an operational standpoint to terminate a contractual relationship and replace one vendor with another.

The key to the successful offering of an oursourced product is vendor selection. As recently noted by the FDIC "selection of a competent and qualified service provider is perhaps the most critical part of the outsourcing process ... [the goal is] selection of a viable service provider that meets the procurement needs and objectives of the financial institution." Of course, the vendor selected should be rational, reasonable, competent, and know the business.

Another key to the successful offering of an outsourced product is execution of a contract between the financial institution and the EBPP provider that is reasonable and mutually beneficial. If the contract is too one-sided, it may be difficult to make the relationship work over an extended period of time. The vendor must be prepared to obligate itself to do what it tells the financial institution it will do. The financial institution, as with any contractual agreement, must recognize that the vendor is in business to make money and that the vendor will be out of business if it does not do so. The financial institution must also realize that a reasonable vendor will not take on uncontrollable or unlimited risk. . . .As one commentator recently noted:

> [A] well-presented contract is the mark of a competent vendor ... [b]ecause banks, in most vendor situations, bear the bulk of the performance risks inherent in the transaction, be wary of vendors that provide contracts that are either so short that they fail to address important issues or so vague that they fail to clarify the parties' duties and responsibilities. A weak contract indicates that a vendor either lacks the sophistication necessary to appreciate the nuances of its business or lacks the interest or resources needed to build and maintain a strong foundation for the relationship.

With respect to arranging for the outsourcing of EBPP services, regulatory guidance is available which is extremely useful in thinking about important protections and provisions that should be included in the vendor selection and contracting processes. The FDIC recently released three informational brochures that provide practical information on how to select EBPP providers, draft contract terms, and oversee multiple EBPP providers when outsourcing for technology services and products; they are not examination procedures or official guidance.

The FRB has also described the types of provisions that should be specified in outsourcing contracts, subject to the proviso that the level of detail should be commensurate with the scope and risks of the outsourced activity. In general terms, these include "all relevant terms, conditions, responsibilities and liabilities of both parties" with specific examples given. Since it remains the financial institution's responsibility to make sure that the EBPP product offered under its name is in compliance with applicable laws and regulations, the contract should clearly designate the party responsible for the day-to-day work of complying with laws and regulations. With respect to ongoing oversight of EBPP services, the program should be formally included in the financial institution's compliance and audit program and the contract should evidence the vendor's consent to this. One practical problem that smaller financial institutions may have is dealing with the reluctance of vendors to agree to the type of on-site compliance/audit review that is typically done internally in connection with the financial institution's general operations.

One of the brochures recently published by the FDIC advocates the use of Service Level Agreements (SLAs) as tools "to measure, monitor and control the operational and financial risks associated with outsourcing technology services." The brochure further points out that "[e]ssential to this process is establishing realistic performance metrics and continuous problem tracking and resolution." Ultimately, one must keep in mind that the SLA provisions are just words--if appropriately designed and reported/tracked they can be very helpful, if poorly conceived they can damage a relationship and be detrimental.

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**Ronald J. Mann, *Regulating Internet Payment Intermediaries,* 82 TEX. L. REV. 681 (2004).**

The Internet has produced significant changes in many aspects of commercial interaction. The rise of Internet retailers is one of the most obvious changes, but oddly enough the overwhelming majority of commercial transactions facilitated by the Internet use a conventional payment system. Thus, even in 2002, shoppers made at least eighty percent of Internet purchases with credit cards. To many observers, this figure has come as a surprise. The early days of the Internet heralded a variety of proposals for entirely new payment systems - generically described as electronic money - that would use wholly electronic tokens that consumers could issue, transfer, and redeem. But years later, no electronic-money system has gained a significant role in commerce.

The continuing maturation of the Internet, however, has brought significant changes to the methods by which individuals make payments. Person-to-person (P2P) systems like PayPal now make hundreds of millions of payments a year between individuals.The most common purpose is to facilitate the purchase of items at Internet auctions, but increasingly P2P transfers are used to transfer funds overseas. Less far along, but gaining transactions rapidly, are a variety of systems for electronic bill presentment and payment (EBPP). Interestingly, both of these developments follow a less ambitious path than the still-hypothetical electronic-money systems: they involve the use of intermediaries to "piggyback" on existing systems to provide payment. Thus, in essence, they use the technology of the Web site to facilitate the use of conventional payment networks.

However disparate these developments might seem at first glance, they present a common challenge to the regulatory system. Unlike banks, which control the execution of payment transactions in conventional payment systems, the intermediaries that populate these new sectors generally are not inevitably subject to regulatory supervision. At most, they are subject to regulation as money transmitters (akin to the regulation of Western Union).

That circumstance presents a serious gap in the regulatory scheme. The pervasive regulatory supervision of banks helps to ensure that they honor their obligations under a variety of consumer-protection and data-privacy regulations that govern their activities. A shift of a significant share of volume to the new and unregulated entities raises a corresponding risk of loss from the irresponsibility of those entities. Thus, although the risk of fraud and privacy violations is doubtless higher in these new forms of transactions than it is in conventional transactions, the regulatory framework governing them is much weaker.

THE NEW TRANSACTIONS

*P2P Systems*

The success of eBay's auction business had the rare effect of creating a vast market for an entirely new payment product, one that would allow non-merchants (who cannot accept conventional credit card payments) to receive payments quickly in remote transactions. Without such a system, purchasers in

the early days of eBay had to use cashier's checks or money orders. Typically, sellers waited to ship products until they received the paper-based payment device in the mail. From a flood of startups offering competing products, PayPal (now owned by eBay) has emerged as the dominant player in the industry, processing hundreds of millions of payments each year. Indeed, industry sources expect that by 2005, auction payments will account for ninety-five percent of the possibly four billion person-to-person payment transactions expected to be made that year. A separate (and much smaller) submarket, exemplified by CitiBank's recently abandoned c2it service, uses similar systems for cross-border payments.

To understand the policy ramifications of P2P payments, it is necessary to understand the relation between the P2P provider and the conventional accounts from which and to which P2P payments are made. That relation can be illustrated by a summary of the three steps that must be completed for a successful P2P transaction.

*Providing Funds for Payment*. - The purchaser that wishes to use a P2P provider to make a payment has two general ways to provide funds for payment. First, it could fund an account with the provider, normally by drawing on a deposit account or a credit card account. Because that process ensures that funds are available for an immediate transfer, it is widely used by those who make frequent purchases. P2P account balances are also commonly used by frequent eBay sellers, who receive funds into their P2P accounts from individuals who purchase the auctioned item. Alternatively, the purchaser could wait until the moment that it wishes to make a purchase. Again, it could choose at the time of payment to provide the funds in question by drawing on either a deposit account or a credit card account. As discussed below, the choice between a credit card and a deposit account as a funding source has significant legal consequences to the user.

In either case, the fee structure is likely to discourage the use of credit cards, because the P2P provider incurs higher fees when it pays the interchange owed to the bank that has issued the credit card from which funds are drawn than when it pays the fees necessary to draw funds from a deposit account through a debit entry in the Automated Clearinghouse (ACH) system. Similarly, because the P2P provider can profit by investing funds that remain in transaction accounts, some providers (including PayPal) encourage users to leave funds in those accounts by paying interest on them.

*Making Payments*. - The attraction of the P2P process is that it is quite simple to make payments. Normally, the only information that the purchaser needs to make a payment is the amount of money and the email address of the intended recipient. After entering that information into a form at the P2P provider's Web site, the purchaser clicks on a "send money" button to request execution of the transaction. 25 If the funds are sent from a balance in an account with the P2P provider or if they are drawn from a credit card, they should arrive in a few hours. If funds are drawn directly from a deposit account, arrival will be delayed by a few days (until settlement of the ACH transaction to obtain the funds from the user's bank).

*Collecting Payments*. - The final step is for the recipient (the seller if the payment is for an auction) to collect the payment. In the typical process, the recipient receives an email notifying it that the payment has arrived. If the recipient has an account with the P2P provider and is willing to leave the

funds in that account, then it is finished. If the recipient does not have an account or wishes to withdraw the funds, it will need to go to the provider's Web site and provide the necessary details.

Ordinarily, the recipient will pay some fee to the provider for making the payment available. Those fees vary considerably, but a typical charge at PayPal would be 25-50 cents plus 2-4% of the transaction amount. In addition, if the payment is made with a credit card, the recipient may be required to bear the cost of any chargeback that the payor seeks under its agreements with the provider and card issuer.

*EBPP Systems*

EBPP systems are not as developed as P2P systems. Accordingly, it is harder to provide a clear picture of their operations. Generally, three different models compete within that industry. The first model consists of products presented by the billing businesses, which send bills to consumers by email and provide a Web site at which payment can be made. The second consists of products of depositary institutions, which permit their customers to pay bills at a Web site operated by the institution. The third consists of products offered by third-party intermediaries. The inter-mediaries operate Web sites that collect bills from various businesses, present them to consumers on behalf of the billers, and then forward payment from the consumers to the billers.

As with P2P systems, the fact that the different models compete to perform quite similar services for consumers should not obscure the significantly differing legal and policy implications of the different models. Accordingly, it is important to explain briefly how each of the three models works.

*Biller Web Sites.* - As the name suggests, the biller Web site model is quite simple. The consumer goes directly to the biller's Web site to view the bill. In many cases, the site will "push" the bill to the consumer by sending an email that includes a link to the full details of the bill. If the consumer is satisfied with the bill, it authorizes the biller to collect payment. The biller, in turn, proceeds to collect the payment (often through a third-party provider such as CheckFree). Alternatively, the biller itself could initiate an ACH transaction debiting the consumer's account.

As compared to conventional paper-based billing processes, those sites can save the substantial costs of preparing and mailing paper bills, as well as the costs of receiving and processing payments by mail. A substantial reduction in the costs of customer-support systems will likely result, because many inquiries can be shifted from the telephone to Web-site response systems. Those sites also can have considerable marketing advantages, both by enhancing the biller's ability to provide targeted advertising and by enabling the biller to develop more sophisticated customer profiles through the collection of information about bill-paying habits. Many consumers also will view the systems as more convenient than traditional paper-based systems. The biggest problem with these systems is the inefficiency resulting from each consumer's going to a separate site to pay each bill.

In the marketplace, those sites have been moderately successful, particularly for credit card issuers. Because the costs of the technology continue to decrease, more billers may offer such sites as the number of customers necessary for the sites to break even falls.

*Internet Banking.* - When banks provide sites, they can overcome the biggest problem that biller Web sites face: the need for consumers to pay their bills site by site. Thus, at the typical bank site, a consumer can pay any bill necessary by entering onto a form at the site the information that the consumer has about the payment. Smaller banks are likely to outsource all of the payment functions to a third-party provider like CheckFree. Larger banks may arrange the payments themselves in whatever manner is most cost-effective. For example, if the recipient is a major biller (such as a local utility), the bank may aggregate payments in a batch and pay them with a single ACH transaction. For isolated transactions, the bank might even cut a paper cashier's check and mail it to the recipient. Those sites have been particularly successful in recent years. One possible reason is that consumers are more willing to trust the necessary financial information to a bank at which they have a depositary relationship than to a third party billing them for a payment.

Another advantage, particularly by comparison to the third-party sites discussed below, is the simplicity of operation. The bank is already involved in the payment transaction - whatever type of site the consumer uses - but use of the bank's site obviates the need for involvement of an extra party. Also, many bank sites do not undertake to present bills electronically. Rather, they simply provide an easy method for consumers to pay the bills that are delivered to them by conventional means. Thus, they avoid the complications attendant on electronic presentation of bills, which is a common feature of the two competing models. Of course, this feature may not be an advantage if consumers desire the functionality available from bill presentment. Thus, it is no surprise that bank sites increasingly offer bill-presentment services.

*Third-Party Providers.* - The most ambitious systems are Web sites operated by third parties at which consumers can view and pay all (or almost all) of their bills. The promise of those sites is a future of a single integrated portal, through which all bills will be sent to a consumer and at which the consumer will be able to pay all bills. The logistical problems of operating such a site are daunting. For one thing, the intermediary operating such a site (CheckFree, for example) must reach agreements with a large number of billers allowing it to present bills on their behalf and establishing a standardized data format for the information in those bills. At the same time, the intermediary must persuade enough consumers to use the site to justify the fixed costs of developing the site's technology. Without a critical mass of billers and consumers, the site cannot prosper. This problem is a standard one of bandwagon effects.

When a consumer uses such a site to pay a bill, the process operates much as it does at a bank Web site. The consumer identifies the appropriate bill and authorizes payment. The intermediary, in turn, arranges for the payment to be sent to the biller, normally through an ACH debit entry from the consumer's deposit account.

For billers that do not operate their own sites, these third-party sites offer a significant benefit because of the potential for the cost savings that come from electronic presentation of bills (discussed above as a benefit of biller Web sites). But the cumbersome nature of the technology to date has made progress slow. Still, if third-party providers can overcome technical problems, they could ultimately become the dominant model.

## DESIGNING A SOUND REGULATORY SYSTEM

The first step in assessing the adequacy of regulatory protections for the developing Internet payment transactions is to determine the extent to which the consumer protections that apply to existing transactions extend to the new transactions. Two forms of consumer protection are relevant here: information privacy and protection from losses related to fraud or error.

The simpler of those forms relates to information privacy. Specifically, under Gramm-Leach-Bliley (GLB), "financial institutions" must not disclose nonpublic personal information to third parties unless they have given their customers an opportunity to opt out of any such disclosures. Some might criticize the narrowness of that protection. It is much narrower, for example, than protections afforded European consumers under the EU's Data Protection Directive and the statutes that implement it. But for present purposes, what is important is that a broad definition of "financial institution" in the applicable regulations means that the rules in GLB apply with just as much force to the new intermediaries as they do to banks and other depository institutions.

It is much more complicated to assess the legal framework that protects consumers from fraud and error, because that framework plainly does not extend completely to the new payment intermediaries. To explain the problems with that framework, the sections that follow summarize the existing framework, the policy choices that it reflects, and how those rules apply to problems likely to arise in the new transactions.

### *Existing Protections Against Fraud and Error*

The most general protection for consumers in these transactions comes from the Electronic Funds Transfer Act and Regulation E (which the Federal Reserve has promulgated to implement the EFTA). The EFTA/E regime applies to any electronic funds transfer (EFT). The statute broadly defines that term to include not only Internet-initiated transactions, but also transactions at an automatic teller machine (ATM) and retail transactions that use a debit card to draw directly on a deposit account. For any such transaction, the statute generally protects consumers from losses caused by an unauthorized transaction. Thus, if a consumer loses a debit card, the consumer's bank would be obligated to restore to the consumer's account any funds removed for transactions that a thief made with the card. Two important exceptions exist. First, the bank can charge the account a deductible of up to $ 50 for each series of unauthorized transactions. Second, more importantly, the bank can charge the consumer more - and in some cases the entire amount of the losses - if the consumer does not advise the bank with sufficient promptness after the consumer learns that the card has been stolen. The EFTA/E regime also provides a detailed dispute-resolution process for resolving claims of errors by the financial institution in charging a consumer's account for a funds transfer.

For credit card transactions, analogous protections come from the Truth-in-Lending Act (TILA) and Regulation Z (which the Federal Reserve has promulgated to implement TILA). Two important differences exist between the two regimes. For one thing, the TILA/Z regime provides broader protection for unauthorized losses - consumer responsibility is capped at $ 50 even if the consumer fails to notify the bank that the card has been stolen. Also, the TILA/Z regime grants consumers a broad

right to withhold payment even for authorized transactions if the seller fails to perform as agreed. As discussed below, the right to withhold provides consumers an important protection against seller fraud.

To the extent that the EFTA/E and TILA/Z regimes are justified, they rest on a series of contestable premises about the ways in which consumers interact with financial institutions. Among other things, they are in tension with the possibility that rational consumers and financial institutions would develop superior methods of allocating the risks and opportunities related to their commercial interactions. Bob Cooter and Ed Rubin have provided the most careful analysis of that problem, identifying a series of defects in the market in which consumers contract with financial institutions. Perhaps the most persuasive of their points undermines the idea that consumers make informed choices about the relevant terms when they contract with financial institutions. As Cooter and Rubin explain, the rational individual consumer will not expend the time and effort to identify and understand the specific terms of the account agreement with its financial institution. In contrast, the rational financial institution would expend considerable effort in formulating an agreement that furthered the bank's interests. Thus, it is unlikely that market pressures are driving the terms of consumer deposit-account agreements to an efficient norm.

A second problem with those rules - as they apply to the conventional credit card and debit card transactions for which they are designed - is that the rules erect distinctions that are difficult to justify as a policy matter. It is easy to accept a distinction between the rules for near-cash transactions with debit cards and the rules for borrowing transactions executed with credit cards. Thus, a merchant that insists on taking cash justifiably might expect the law to accord more finality to the transaction than a merchant that accepts a device as unlike cash as a credit card.

But the differences between the EFTA/E and TILA/Z regimes do not map well to that common-sense transactional distinction. For example, a merchant that accepts a promissory note obviously has less certainty of final payment than one that accepts cash, primarily because of the practical likelihood that the purchaser or borrower may choose not to pay - an option not available to the cash purchaser. But in the conventional credit card transaction, the card issuer by contract with the merchant agrees to accept the risk that the cardholder will fail to pay balances charged on the card for reasons other than assertion of a defense to payment. The TILA/Z regime discussed above effectively deprives the merchant of the possibility of making that contract, because any claim of a defect by the consumer will result in an immediate charging of the transaction back to the merchant.

It is easy to see why that right is useful to consumers. And substantial policy reasons can be adduced to support it. For example, merchants might have greater economies of scale and experience in conducting litigation than consumers. If so, placing the burden of litigation on the merchant by putting the money in the hands of the consumers when the dispute begins might produce results that are more equitable by offsetting the merchant's advantages.

But it is not clear why it is appropriate for that rule to extend to credit card transactions but not to debit card transactions. The difficulty in justifying the distinction only grows with the continuing convergence in the functions of the two products. . . .

Finally, several of the distinctions in the details between the TILA/Z and EFTA/E regimes can be explained by nothing other than differences in the level of concern for consumers in the differing Congresses that enacted them. For example, what policy basis justifies the differing definitions of consumers in the two systems, the differing protections for unauthorized transactions, and the differing definitions of billing errors from which consumers are protected?

From a broad perspective, the incoherence of those distinctions suggests that the system would be improved by the articulation of a set of general legal rules to govern consumer payment systems. Those rules presumably would eradicate many of the distinctions that current law draws between functionally similar payment systems. At the same time, they plausibly might include distinctions between face-to-face and remote (telephone, mail-order, and Internet) transactions. For current purposes, the distinctions are important not because of the possibility that some future legislature might remove them. They are important to this project because they have been carried over into the Internet payment transactions - the focus of this Article - with no more coherence in that context than they have in the context where those distinctions developed.

*Protections Against Fraud and Error in the New Transactions*

Unfortunately, the legal framework protecting consumers against fraud and error has not been updated to accommodate the new transactions. Thus, that framework includes three types of problems: situations where the incoherent distinction between the TILA/Z and EFTA/E regime is replicated in the new environment, minor oversights in regulatory drafting, and more significant omissions in regulatory coverage. The sections below discuss how those rules apply to the new transactions and underscore those problems where they arise.

*P2P Transactions*. - Current experience suggests that fraud is a serious problem in P2P transactions. One Federal Reserve researcher estimates that PayPal's fraud rate of 0.66%, albeit much lower than the rate of online credit card fraud, is about four times the rate of fraud for retail credit card transactions and more than sixty times the rate for retail debit card transactions. But the legal rules for determining whether the consumer bears the losses from that fraud depend in an important way on how the consumer pays for the transaction. To see the point, imagine an eBay auction in which a fraudulent seller never ships any goods to the buyer. If the transaction is funded from the purchaser's account with the P2P provider, it is an EFT governed by the EFTA. In that event, the purchaser has no right, either against the financial institution or the P2P provider, to recover the funds for an authorized transaction solely because of a complaint about misconduct by the seller, however meritorious the complaint. The same analysis applies if the purchaser funds the transaction by authorizing a transfer directly from the purchaser's deposit account. This type of transaction is also an EFT covered by the EFTA/E regime.

But if the buyer has the good luck (or foresight) to fund the purchase directly from a credit card, the transaction is governed by the TILA/Z regime. Thus, among other things, the purchaser should have the right to withhold payment if the seller in fact never supplies the goods. The statute grants a broad right to the cardholder to withhold payment based on "all claims (other than tort claims) and defenses arising out of any transaction in which the credit card is used as a method of payment." Thus, if the transaction through PayPal is viewed as a single unified transaction in which the auction purchaser uses

PayPal and the credit card to buy something from an auction seller, the TILA/Z regime protects the purchaser. As discussed above, it is odd to have such an important protection turn on something that is as trivial to the transaction as the method by which the purchaser funds the transaction to the P2P provider. But it is not any more odd to see that distinction here than it is to see it in the conventional point-of-sale context.

The other likely type of fraud is for a third party to obtain the consumer's PayPal login information and use that information to conduct an unauthorized transaction by drawing on the consumer's PayPal account. If the interloper draws directly on the P2P account, Regulation E makes the P2P intermediary directly responsible: subject to the normal exceptions, the P2P provider cannot charge the consumer's account for the transaction. The same result applies under the TILA/Z regime if the interloper uses the information to draw funds from the consumer's credit card.

The only ambiguity applies if the interloper uses the information to withdraw funds from the consumer's deposit account. In that event - because of an odd glitch in the regulation - it seems that neither the P2P provider nor the bank is obligated to return the funds to the consumer's deposit account. The bank apparently is not obligated because it is entitled to treat the transaction as authorized. A transaction is authorized under the EFTA if it is executed by a party (the P2P provider in this case) to whom the consumer has given the relevant access information. Because that fact makes the transaction "authorized" with respect to the account from which funds were drawn, it appears that the rules related to "unauthorized" transactions impose no obligation on the P2P provider for the loss. The most likely source of recovery for the consumer would be an action against the P2P provider's depositary institution (the entity that originated the ACH transfer) for a breach of the applicable National Automated Clearing House Association (NACHA) warranties. Because of the limited litigation to date in that area, it is difficult to assess the likelihood of prevailing in such an action.

This problem, however, is not a serious one. Unlike the incoherent boundary between the EFTA/E and TILA/Z regimes, which is a somewhat more permanent feature of our system, this problem seems to be a simple glitch, which the Federal Reserve easily could remedy on its own volition.

*EBPP Transactions.* - Because of the variety of business models, it is difficult to provide a comprehensive schema of the types of transactions that pose risks for consumers. But one simplifying factor is the general absence of credit card payments from those transactions. This absence means that the legal issues focus almost entirely on the reach of the EFTA/E regime, rather than its boundary with the TILA/Z regime. The simplest approach is to look separately at the risks posed by each of the three prevailing business models.

*Biller Web Sites.* - The most likely difficulty is an unjustified payment to the biller. The biller might pay one consumer's bill from another consumer's account or it might pay itself for a bill even if the consumer did not in fact authorize payment. Interestingly enough, the EFTA/E regime would not provide protection in either case. As discussed above, the consumer cannot claim that the transactions are "unauthorized" for purposes of the EFTA/E regime. For similar reasons, the consumer cannot claim that they amount to an "error." The statutory definition of "error," albeit vague, is directed to errors by the bank, not errors by a third party to whom the consumer has granted access. Thus, the statute offers

the consumer no recourse in that situation. Given the likely solvency of the typical billing entity, perhaps the situation is not unduly troublesome, but it does seem inconsistent with the general philosophy of the EFTA/E regime as applied to conventional transactions.

*Internet Banking*. - The framework for Internet banking is the simplest. Because there is no intermediary, the financial institution takes all actions regarding the account. Accordingly, the rules in the EFTA/E regime apply directly to protect the consumer from unauthorized transactions and errors.

*Third-Party Providers*. - As the discussion above suggests, the harshest results for consumers come from the third-party systems because the insertion of an intermediary enhances the likelihood that the EFTA/E regime will not apply. Two general problem transactions are apparent:

(1) Interloping and Erroneous Bills. - In this scenario, a malefactor fabricates a bill and has the provider send it to the consumer. Alternatively, and less maliciously, the bill is a legitimate one that, because of an error by the intermediary, is posted and distributed to the wrong consumer. Suppose that the consumer pays the fraudulent or erroneous bill. For the reasons discussed above, the consumer will not be able to claim that the transaction is either unauthorized or a remediable error. Of course, in this particular transaction it is easy to fault the consumer for not detecting the spoofed bill. But in many of the existing cases of Internet fraud, a consumer of ordinary sophistication would not necessarily have recognized the problem. Imagine a bill purporting to come from your local electric utility, in a format visually identical to the electric bill you receive every month, which arrives 29 days after your last bill and is in an amount approximately equal to that bill. Your first hint of a problem is likely to come when the legitimate bill appears the next day. Given that problem (a variation on the new Internet crime called "phishing"), it is reasonable to consider whether intermediaries should bear those losses. If they were responsible for those losses, they might be better motivated to develop technology to detect such infiltrations. For present purposes, the important point is that the existing legal rule for this situation reflects pure happenstance rather than a reasoned resolution of the economic and policy issues.

(2) Interloping Payments. - In this scenario, the intermediary makes a payment based on an instruction from an interloping malefactor rather than the consumer. As with the analogous P2P transactions, the ambiguity in the regulation's coverage of unauthorized transactions leaves a substantial possibility that the consumer has no protection.

*Summary*. - Although the discussion in the preceding sections might seem unduly detailed, the level of detail is important to show how difficult it is to design a system to govern the transactions in question. Neither the EFTA nor Regulation E is particularly old. They are not supervised by a regulatory agency out of touch with the developments in these transactions, and many of the most informative papers in the area are written by Federal Reserve staff, particularly by members of the group studying emerging payments in its Chicago branch. The point is that these transactions are developing so rapidly and with such fertile inventiveness that it is difficult to expect any regulatory system to keep pace and ensure coherent coverage as long as the system is premised on the categorical distinctions that drive the current framework.

Thus, even with a coherent response to the problems addressed above, new problems may emerge rapidly, leaving the regulatory coverage again uncertain. Such problems are inevitable until and unless a more functional code is adopted to govern electronic payments generally. Meanwhile, the minor change discussed above could at least make the system as coherent for these transactions as it is for conventional transactions.

ENSURING REGULATORY COMPLIANCE

The EFTA and TILA use the typical apparatus of the modern federal regulatory statute: provisions for class actions, statutory damages, attorney fees, and the like. Accordingly, it would be natural to conclude that a careful analysis of the problems discussed in Part III of this Article should be enough to resolve the problem. Once the EFTA/E and TILA/Z regimes are brought up to date, we might think that the new entities would comply and all would be well.

But two general concerns make that optimistic outlook seem implausible. First, it is doubtful that the kinds of civil-liability regimes at hand, which rely primarily on litigation by small and dispersed consumers, will be able to control the behavior of the large businesses at which they are directed, particularly when the facts of each unauthorized transaction and billing error often will be specific to each individual consumer.

Second, the pervasive federal regulation of banks substantially increases the likelihood that banks will comply with their obligations under the TILA/Z and EFTA/E regimes. At the most basic level, the direct purpose of much of federal banking regulation - federal supervision of capital maintenance and lending practices - is to ensure the solvency and fiscal prudence of the institutions. If that regulation is even marginally effective, it increases the likelihood that banks will have the assets necessary to comply with their obligations under those statutes. That might seem like a small thing, but the likelihood that a major Internet payment fraud could create a regulatory responsibility beyond the assets of a small dotcom P2P provider is plausible. That possiblity is particularly true given the likelihood that those providers will be targets for fraudulent activity, as PayPal has been. More generally, the persistent supervision and need to accommodate regulators on a regular basis makes it quite difficult for a bank to adopt a cavalier attitude about regulatory compliance.

The same analysis applies to privacy obligations. It does not take a hardened cynic to think that the chances of systematic noncompliance - or even lackadaisical compliance that tolerates a significant number of low-level violations - is much more likely for unregulated companies than for regulated depository institutions. In assessing that likelihood, it is important to note that GLB, unlike TILA and the EFTA, does not provide for a private cause of action. Finally, it also is worth wondering whether smaller companies that are unregulated and financially constrained will be adequately motivated to expend the resources necessary to protect their consumer's information from unauthorized access by third parties.

To put the point generally, the regulatory regimes directed to the activities of the new payment intermediaries depend in part for their effectiveness on the background regulatory supervision of the banks governed by those regimes. Because nonbank payment intermediaries are not generally subject

to that supervision, there is a cognizable risk that they will show less care in complying with those regimes than conventional depository institutions. . .

*Potential Responses*. . .

*Doing Nothing*. - The first possibility is to do nothing. At this point, the concerns expressed above are largely (though not entirely) conjectural. An advantage of the current system is that it permits ready entry into the market, which has facilitated rapid development of the competing business models and vigorous competition among the various providers. Thus, the P2P market is growing rapidly and already has experienced a considerable shakeout of weaker and unsuccessful providers. The EBPP market is even more fluid, so it is too soon to predict exactly what types of services these providers will offer. Inevitably, any regulatory intervention would heighten barriers to entry in the industry. The barriers would be likely to have the immediate effect of limiting competition, particularly by smaller and newer companies. Thus, regulatory intervention might drive intermediaries from the market, even if their model might have prevailed in the marketplace.

In assessing the weight of that concern, it is necessary to credit the importance of "network" or "bandwagon" effects in this industry. Thus, PayPal's success in the P2P market shows some of the signs of a successful implementation of a lock-in strategy: an early effort to acquire customers by offering services at a very low (indeed, negative) price. This strategy led to rapid growth of a customer base and was followed in turn by the imposition of substantial transaction fees. Without that kind of sustained effort, it is very difficult for that type of network good to obtain a sufficient critical mass of users to reach the maximum optimal level of deployment. It would be unfortunate if a well-intentioned regulatory intervention had the effect of stifling the competition necessary for such products to be introduced successfully. On the other hand, the absence of regulatory intervention may enhance the possibility that the competition will go beyond robust to unfair. But that concern seems less significant given the fact that the existing players - the ones who would be at risk of harm from unduly aggressive competition - are financial institutions (presumably capable of protecting themselves from such conduct).

*Direct Regulation of Intermediaries*. - The second possibility is to adopt some form of regulatory supervision for Internet intermediaries. The benefits of that approach are obvious. First, it enhances protections for consumers by providing a backstop to the direct legal obligations of intermediaries, parallel to the backstop that federal regulatory authorities provide for banks. Second, it levels the playing field left uneven in the present arrangement, in which banks always are subject to intensive regulatory supervision but Internet payment intermediaries are subject to little or no supervision.

The first issue is to decide what type of regulatory system would be appropriate. Because the entities are not themselves holding demand-deposit accounts, the case for full-scale bank regulation is quite weak. Among other things, Internet intermediaries are not subject to the kinds of "runs" that make the stability of depository institutions an important object of public policy.

Accordingly, the appropriate form of regulation would be something less intrusive, similar to the existing regulation of money transmitters (to which PayPal is subject in many states). That regulation

generally requires businesses to obtain a state license, imposes periodic reporting requirements, and subjects them to audits by state officials. It also often includes minimum net worth or bond requirements or imposes restrictions on permissible investments.

The next issue is to decide at what level the regulations should be imposed. Money transmitters currently are regulated at the state level, not the federal level. As that industry has become more consolidated, considerable pressure has arisen for more uniformity in the various state regulatory schemes. That pressure, in turn, has led to the recent drafting and promulgation of the proposed Uniform Money Services Act (UMSA) (already adopted in Iowa, Vermont, and Washington). Although that statute probably would not apply to EBPP providers in its current form, its substantive provisions provide a useful and up-to-date template for regulation.

The difficult question is whether state, rather than federal, regulation is appropriate. Inconsistent state regulations are more problematic for Internet-based businesses. This is particularly true as the share of cross-border payments increases, which raises the prospect of regulation by the several states of this country and foreign countries. Thus, although the simplest path for the time being might be to foster broad enactment of regulations similar to the UMSA (broadened to cover EBPP providers), it is difficult to believe that anybody trying to design a rational system would conclude that parallel regulation by all local jurisdictions is the most appropriate way to regulate the Internet-based entities under discussion.

A second possibility would be to allow regulation of the intermediary in a particular state jurisdiction in which the intermediary could be said to be located. Internet scholars have tried hard to resolve such choice-of-law questions to make a territorial allocation of regulatory authority. To the extent those efforts speak to this question, they generally suggest that each jurisdiction in which the consumers reside would have the power to regulate the entities in question. But scholars have not achieved a clear consensus about a basis for a particular location taking the regulatory lead, largely because there is a clear consensus that the location of the physical aspects of the system (the Web server that contains the Web site, for example) should not be dispositive.

Moreover, even if a consensus could be reached, under which all of the states (and affected foreign countries) would agree that a single state has the sole power to regulate the entity, a substantial problem would remain in the gross lack of symmetry between the reach of the regulated market (basically national, with international aspects) and the constituency of the regulator (statewide). Relying on basic public-choice concepts, the lack of symmetry imposes a substantial risk that the jurisdiction in which the intermediary is located will adopt rules unduly favorable to the intermediary. This risk is particularly salient if the jurisdiction obtains substantial benefits from the location of the intermediary in the jurisdiction (through employment or taxes), while most of the intermediary's customers are located in other jurisdictions.

The basic problem is that the issues that motivate the regulation are not sufficiently related to state-level variations and circumstances to make state-level regulation optimal. Thus, perhaps the best approach would be a federal statute. This proposition does not suggest that state law-enforcement authorities are not so interested in the closely related problem of money laundering that they will resist

any lessening of their authority in the area. But it is to say that these issues of consumer protection are more likely to be addressed optimally at the federal level.

At the federal level, the simplest response would be to require these services to be provided by banks, which would obviate the need for any specific regulatory legislation. But as discussed above, the business that these intermediaries operate suggests that bank-type regulation is unduly onerous. Thus, a better approach would be regulatory legislation tailored for these intermediaries. It might seem implausible in the current environment to expect Congress to create a new federal regulatory regime, particularly when the regime seems to fall in the area of commercial law that Congress traditionally has left to state regulation. On the other hand, the recent experience of the Check 21 Act (passed by both houses of Congress during its current legislative session) suggests that the Board of Governors of the Federal Reserve enjoys a sufficiently influential position with Congress to obtain enactment of legislation designed to ensure the effective operation of the payment system. Given the interest that researchers at the Federal Reserve's constituent banks have taken in these developments, it is not far-fetched to think that the Federal Reserve might take the lead in developing such a statute.

*Regulating Banks as Gatekeepers*. - The final approach is the most adventurous: directly obligating banks to ensure compliance with the EFTA/E and TILA/Z regimes for all transactions at the bank. The premise here is to view the bank as a gatekeeper that will both monitor the intermediary to ensure that it behaves appropriately and exclude those that cannot be induced to behave appropriately.

Because the problems discussed [above] arise only if the intermediaries can access accounts at the bank, the bank is theoretically in a position to control the activities of the intermediaries. For example, the simplest response to such a scheme might be for the bank to provide by contract that the intermediary would be responsible to the bank for the costs that the bank incurs for Regulation E compliance related to transactions that the intermediary conducted on the accounts of the bank's customers. The bank would take the cost-effective steps to minimize the costs that it incurs from any failure of the intermediary to satisfy those obligations: it might require the intermediary to obtain a letter of credit from another institution, post a bond, or simply deposit a reserve of funds in the bank against which the bank could draw for those expenses.

This approach has several benefits. One obvious benefit is that it protects consumers from asset insufficiency on the part of the intermediaries. The gatekeeper strategy is uniquely suited to situations in which practicable legal remedies are not adequate to ensure full compliance with regulatory responsibilities. Another potential benefit relates to the likelihood that the banks on which the risk of loss ultimately would fall are larger, better capitalized, and more diversified in the range of their operations than the intermediaries for whom the banks are to be the gatekeepers. Specifically, if the greater size and financial sophistication of the banks makes it more cost-effective for them to bear and spread those losses, then the gatekeeper regime would lower the total cost of those losses.

A more general benefit is that the bank should be more effective at monitoring the activities of the provider than government regulators, because the bank arguably would have a strong incentive - maximizing the value of the account services received by its customers - to ensure that the regulations that it imposes on the intermediaries do not unduly burden the activities of the intermediaries. If the

bank attempts to exclude those intermediaries by imposing excessive burdens on them - burdens that are not cost-justified - the bank would reduce the net value of the services that the bank could extract from its customers. If so, we might expect customers to migrate to banks that reach more effective arrangements with the intermediaries.

The banks should be in a better position than any government regulator to assess in a dynamic and informed way the relative benefits and burdens of various responses that the bank might take in response to a gatekeeping responsibility. For example, the banks are likely to assess the legitimacy of the activities of the intermediary more knowledgeably than any regulator. In addition, it seems unlikely that the banks would cooperate with the intermediaries in misconduct - a particularly topical concern in gatekeeping arrangements in a post-Enron environment.

In sum, the bank would be in a position to make intelligent, market-driven choices about how to trade off expenditures on monitoring the activities of the intermediary versus simple reliance on monetary assurances from the intermediary or bonds from fiscally responsible third parties. This choice is particularly important given the complicated, technology-sensitive, and rapidly developing nature of the industry.

The gatekeeper approach presents several obvious problems. First, it would be likely to increase the costs of the bank's activities, and thus the costs of the services provided to the bank's customers. In an era when the number of consumers who are priced out of the market for banking services already is sufficiently high to be a cause for policy concern, any initiative that might aggravate that problem warrants serious scrutiny. But the twin premises of this approach would be (1) that those costs would not be substantial unless there was a significant risk that the intermediaries would fail to comply if left to their own devices (thus letting those costs fall on consumers in any event); and (2) that the banks are much better situated than government agents to identify and minimize those costs.

Another problem with this approach is that it does not address privacy issues at all. Because a simple monetary remedy - restoring funds improperly removed from the consumer's deposit account - does not as easily remedy privacy issues, this type of remedy offers no protection on that score.

Another obvious problem is technological: the effectiveness of the approach depends entirely on the ability of banks in fact to control the conduct of the intermediaries. As the controversy over screen-scraping suggests, it is not clear that current technology permits banks to prevent intermediaries from accessing their customers' accounts without their consent, because it is difficult for the bank to distinguish between two different persons accessing the Web site. If both the intermediary and the customer have the customer's user ID and password, the bank's server probably will not be able to ascertain which of the two is accessing the account on any particular occasion. If this problem is true, then technology alone will not permit the bank to use the threat of exclusion to control the intermediary's access.

That technological problem seems unlikely to be a serious problem of regulatory design. It would be easy enough to impose a general prohibition (akin to the Consumer Fraud and Abuse Act, 18 U.S.C. 1030 (the CFAA)) on accessing a customer's account without the consent of the bank. With a

broadening of the CFAA, intermediaries would not be able to access deposit accounts without permission from the bank. The bank, in turn, could condition its permission on the formation of a contract relationship with the intermediary that would include whatever terms were appropriate to implement the bank's responsibility for regulatory compliance.

Finally, the most serious difficulty with that approach is the possibility that it will have a markedly adverse competitive effect. As the discussion above emphasizes, both the P2P and EBPP markets currently include a number of nonbank entities competing directly against banks. Although a regime in which banks control access to the accounts for which payment intermediaries provide services may not be as exclusive as a regime in which those services can be provided only by banks, the potential for anti-competitive conduct is obvious. If applicable regulations permit banks to impose onerous terms on the intermediaries, then the bank's ability to drive those providers from the marketplace might be enhanced.

On the other hand, this kind of conduct would be effective only if banks as a group colluded to exclude the intermediaries. As discussed above, a bank that tried to impose undue burdens on intermediaries to exclude them from the bank's customers would face competition from other banks that might try to maximize the value of services they could provide to their own customers by entering into value-increasing arrangements with intermediaries. Because the banking industry is highly competitive, it is doubtful that collusive exclusionary tactics would be effective. Moreover, particularly in light of the competitive structure of the banking industry, it may be reasonable to rely on traditional antitrust enforcement to protect providers from such practices.

*Recommendations*

For several reasons, it is not plausible at this stage to offer a definitive "answer" to the problem of regulatory strategy that this Article addresses. For one thing, the industries are developing and changing so rapidly that the object of inquiry is a moving target. For another, information about how the systems in fact operate is scarce, and it is difficult to assess the weight of the competing concerns. We know next to nothing about the rates of fraud and error in these systems, the culture of data privacy in the industry, and the degree of compliance with regulatory responsibilities. Finally, because the possible risks of allowing unregulated access to consumer deposit accounts and of hasty intervention in a fluid competitive situation are not readily balanced against each other, an element of frank judgment is necessary to resolve a conflict between them.

Still, the analysis of the alternatives presented above does support some tentative recommendations about the most promising avenues of relief. The recommendations that follow take the perspective that the correct answer to the problem provides consumers protections as close to what they have for conventional financial relationships as seems practicable, without unduly harming the potential for competition and innovation in the industry. Those recommendations reflect in part an attempt to foster outcomes likely to be consistent with consumer expectations. The recommendations also reflect an implicit willingness to place considerable weight on concerns about privacy issues. It seems much more troubling from a privacy perspective to have consumer financial information in the hands of wholly unregulated and thinly capitalized companies than in the hands of banks. In any event, because the

recommendations rest heavily on those perspectives, it is worth emphasizing that policymakers who do not place as much importance on these concerns would reach different conclusions.

*P2P Intermediaries.* - Selecting a regulatory approach for the P2P intermediaries is difficult for a variety of reasons. First, because of the persistent allegations of misconduct by PayPal - none of which, to be sure, seems to have resulted in any proof of serious misconduct - it seems unacceptable to have PayPal completely unregulated. At the same time, the competitive landscape shows a tension between PayPal - now owned by eBay - and smaller competitors primarily controlled by banks. In that setting, it seems particularly inappropriate to use the gatekeeper strategy to subject PayPal's operations to the control of the banking industry. For the same reason, it seems absurd to say that P2P services must be provided by a bank. That requirement simply forces eBay to sell PayPal to a bank. The evident synergy between PayPal's operations and eBay's suggests that any such outcome would unnecessarily destroy some significant opportunity for innovation in the provision of payment services.

My views on that point are strongly influenced by the potential of PayPal to be a major competitive figure as Internet payment systems develop in the years to come. For example, it is a well-known aspect of the Internet that the payment systems available for Internet retailers are wholly inadequate: they are both expensive and subject to high rates of fraud(the costs of which are born directly by the retailers). Yet, the major credit card networks have retained a dominant near-monopoly position in that market. PayPal is already one of their strongest competitors, as it provides payment services to smaller merchants that find it uneconomical to join Visa or MasterCard directly. An unconstrained PayPal may have the potential to be a risk for consumers. But, at the same time, an unconstrained PayPal that forces Visa, MasterCard, and the banking industry to look constantly over their shoulders could do more for the competitiveness of Internet payment providers than any pressure that the Antitrust Division of the Department of Justice has brought to bear.

More broadly, the introduction of this Article notes the persistent failure of electronic-money products to take hold on the Internet. If there is a market for a new and innovative electronic-money product, the likelihood that such a product will be developed, implemented, and deployed successfully is maximized by a regulatory system that permits the continuing presence of a large player like PayPal not wedded to the existing payments networks.

The foregoing comments seem to leave a choice between doing nothing and adopting the light federal regulatory regime previously discussed. Doing nothing of course does not leave PayPal completely unregulated, because it already is under the supervision of money-transmitter statutes in a number of states. And the events to date make it difficult to be sure that the risk of duplicative or inappropriate regulation - either excessive or too lenient - will cause problems. In any event, in a perfect world, a single federal arrangement would make more sense. Given the fact that PayPal's parent eBay already must comply with the increasingly onerous requirements that come with its listing on NASDAQ, it seems unlikely that those requirements would impose costs that would have competitive significance to PayPal. And at the same time they should go far to assuage the concerns summarized above about PayPal's responsibility for its regulatory obligations.

*EBPP Intermediaries.* - It is much harder to come to rest on a recommendation for the EBPP systems. Because their operations necessarily involve pervasive access to consumer deposit accounts, privacy and fraud concerns are more substantial than in the P2P context. P2P providers by contrast, are likely for many consumers to conduct their operations without any mechanism for accessing the consumer's deposit account. To be sure, reports of problems with the EBPP systems to date are few, but the fluidity of the highly fractionated market gives little basis for confidence that all members of the industry will be responsible. Thus, it seems unacceptable to think that the current regulatory framework will be suitable in the end.

At the same time, it seems excessive to say that only banks can provide those services. Among other things, a rule limiting those services to banks would significantly diminish the likelihood of a universal payment service. In the end, one can make a strong case that such a site is at least part of the optimal response, because it would be easier for it to overcome the classic bandwagon-effects problems of attracting sufficient billers and consumer payers as customers. Of course, such a site still could develop in a "bank-only" approach, through contracts by individual banks with a dominant provider like CheckFree. A serious cost of the bank-only approach is the possibility it will lessen the potential for such a service.

That leaves for consideration the intermediate approaches of industry-specific regulation and the use of banks as gatekeepers. The gatekeeper approach has several positive qualities. It would permit a tempered market experiment of competition between the more sophisticated universal model, on the one hand, and the simpler Internet banking and biller models, on the other hand. Thus, it would help reveal the strength of consumer preferences for the different models. At the same time, it would provide the strongest assurance that consumers in fact would be protected from losses from fraud and error.

But the gatekeeper approach would do nothing to ensure the privacy of consumer information: it is feasible to require banks to hold deposit accounts unharmed from unauthorized transactions, but it is much more problematic to require them to ensure that intermediaries comply with their privacy obligations. A light scheme of federal regulation like the one discussed above could include monitoring of data-privacy compliance to assuage that concern. Moreover, the gatekeeper approach creates a substantial risk of anti-competitive conduct by banks tempted to exclude their nonbank competitors. A separate federal regulatory apparatus would avoid that problem.

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**David D. Friedman and Kerry L. Macintosh, *The Cash of the Twenty-First Century,* 17 SANTA CLARA COMPUTER & HIGH TECH. L.J. 273 (2001).**

Money serves three basic functions: medium of exchange, unit of account and store of value.

Consider first the primary function of money - as a medium of exchange - a way of avoiding the problems of barter. Suppose a contractor who builds houses wants to buy food. In a world without money, he must find someone who wants a house and has food - a lot of food, perhaps a year's worth or more - to offer in exchange. If a law professor wants a car, she must find someone who wants to learn law and has a car to give in exchange. This double coincidence problem - the problem of finding someone who has what you want, and wants what you have - makes barter a clumsy form of trade, especially in a complicated society with a wide variety of goods and services.

Money solves the double coincidence problem because it is a single good that everyone will accept in exchange for goods or services. Thus, a contractor or law professor can sell services to one person and use the money to buy food or a car from someone else.

In order to serve as an effective medium of exchange, the money must be widely accepted within the trading community. Our present system of monopoly monies meets that need reasonably well, although not perfectly. For example, if an American wants to make a purchase within the United States, she knows that other Americans will accept her dollars. Indeed, federal law makes dollars legal tender for all debts, public and private. If, on the other hand, an American travels to Europe on vacation, she quickly learns that dollars are not accepted overseas. She must visit the exchange booth and make the transition to another system of monopoly money.

Most forms of money also have an additional characteristic that is useful in a medium of exchange: anonymity. Traders wish, for a variety of reasons, to control information about their activities. Commodity monies (e.g., gold coins) and paper currencies (e.g., dollar bills) allow them to do so. Cash is anonymous because it does not create transaction records. One can take down the serial numbers of notes used to make a payment and then attempt to trace them, but few people take the time and effort to do so. By contrast, credit cards and checks are not anonymous because they create a paper trail that can be traced.

The second function of money is as a unit of account, a way of stating and comparing prices and values. Here again, monopoly monies have had an advantage until now, since it is easier to compare the prices charged by alternative sellers if they are all expressed in the same units. For example, there is some evidence that the introduction of the Euro is reducing price variance across European markets by making comparison-shopping easier between sellers located in different countries.

Buyers routinely make comparisons across time or space, judging the price of an item by prices they have seen for similar goods in the past. Hence. an additional desideratum for a unit of account is price stability. If the value of money changes rapidly, it becomes difficult to use information about past prices to judge present prices, raising the information costs of transactions. A further reason for that

desideratum is that a unit of account is used not only to measure prices, but to keep track of financial accounts - among other things, to make it more difficult for firms, or the employees of firms, to cheat their stockholders or creditors. That, too, is harder to do if the value of the unit of account is changing rapidly.

Money's third and final function is as a store of value. Few people in a modern society hold very much of their wealth as currency since other financial assets pay interest and currency does not. However, in order to use money as a medium of exchange, we must hold some. Moreover, many other financial assets we hold are debts (e.g., bank accounts, or promissory notes) that can be repaid with money. If debtors repay us with devalued currency, our wealth is diminished.

Thus, we desire money that maintains - or better yet increases - its value. Ideally, money should either consist of a commodity with stable or rising value, or be produced by an issuer that has an interest in maintaining stable or rising value. For the same reason, it is also desirable that money be difficult to counterfeit.

*Monopoly Government Monies: The Current System*

Under present conditions, monopoly government monies serve two of the three functions described above. Most transactions, at least in large countries, occur between people using the same medium of exchange. Also, most people observe most prices in units of account they can understand.

Monopoly government monies do not perform the third function as well. Governments are reasonably good at preventing counterfeiting and have the power to regulate money so that its value remains stable. Unfortunately, governments also have the power to inflate their own monies and have done so to cover deficits, redistribute wealth and stimulate the economy, among other goals. Inflation and hyperinflation are ever-present risks of the current system. Moreover, when government money becomes unstable enough to make price comparisons difficult, its ability to function as a unit of account is also impaired.

Historical evidence indicates that a system of competing government monies is more stable. During the Middle Ages and Renaissance, governments issued their own monies, but expressed them in the same standard weight of gold. These "dollars of the middle ages' served as the medium of exchange for international transactions. Governments were reluctant to debase their gold currencies, fearing that traders would shift to an alternative - from the bezant to the dinar or from the florin to the ducat. During the same period, however, governments did enrich themselves at the expense of citizens by debasing silver coins. The obvious explanation is that there was no market penalty for debasing silver, which functioned primarily as monopoly money.

A competing system of private monies is also possible. Lawrence H. White has documented the positive free banking experience in nineteenth century Scotland. There, free entry and competition yielded a stable banking and monetary system. However, the stability of a free banking system is constrained by the fact that the notes, though privately issued, are debts denominated in a monopoly money that is subject to government control.

The famous economist Friedrich A. Hayek thought free banking did not go far enough. He proposed a more radical solution: private companies should issue monies based on commodity standards of their own choosing. He believed competition would give private issuers adequate incentive to maintain the value of their currencies.

*Electronic Money and On-line Commerce*

Making payments by physically transferring objects, whether gold coins or paper currency, works reasonably well in the physical world, but it encounters serious problems in on-line commerce. There is no practical way to pass a twenty-dollar bill through a modem. Instead, we must transact using intangible claims to payment.

Credit cards allow us to do this. Unfortunately, credit cards pose certain disadvantages for sellers and buyers alike. On every transaction, sellers must pay percentage fees that erode their profit margins. Sellers also face the risk that buyers may attempt to reverse charges after receiving goods or services. Meanwhile, buyers who transmit credit card numbers on-line risk capture of information by interlopers. Even though federal law strictly caps liability for unauthorized charges, a stolen number can give a criminal the foothold he or she needs to commit identity theft. Finally, and perhaps most significantly, credit card transactions leave a paper trail that can result in a loss of privacy for sellers or buyers.

Electronic money can provide the on-line economy with an alternative payment system. A government - or a private company - can issue coins or notes in the form of electronic information. Each coin or note represents a claim against the issuer and can be redeemed in exchange for traditional money (e.g., dollars), commodities (e.g., gold) or any other agreed item of value.

Since electronic money is just information, geographical constraints become irrelevant. It is just as easy to transmit electronic cash to someone on the other side of the world as to someone next door. Moreover, once electronic money is loaded onto the computer chips embedded in "smart' cards, it can be used in real as well as virtual space.

In a world of electronic money, sellers need not fear that buyers might reverse credit card charges after goods have been shipped or services received. Providers of online services can charge for access as it occurs, using automated transaction systems. Buyers can trade free of the worry that credit card numbers may be stolen.

Moreover, unlike credit cards, which leave a paper trail, electronic money can be designed to provide traders with the anonymity they crave. Imagine an electronic currency that is encrypted so securely that the parties - seller, buyer and issuer - cannot identify each other. Such fully anonymous electronic cash surpasses the privacy obtained with paper bills since a properly designed set of encryption protocols do not allow the equivalent of serial number tracing.

Given the advantages, it seems likely that one or more electronic currencies will come into use for online transactions, and having done so, will also become available for real space transactions through payment technologies such as smart cards. But will the currencies be monopolies? And if so, within

what boundaries? Will the issuers of the currencies be governments or is the time ripe for private companies to enter the money business?

*How Will Technology Affect Money?*

The answers to these questions depend on technology. To explain why, we discuss four factors: (1) the Internet and online commerce; (2) computers that can perform complex calculations; (3) electronic currency that is easy to create, manage and redeem and, (4) increased bandwidth leading to real-time audio and video. Each factor will play a role in determining the future of money.

The Internet makes on-line commerce possible and on-line commerce makes it easy to trade with people who are far away. As a result, geography and nationality are becoming less important to trade and traders.

As discussed above, our current system of monopoly monies is based on the premise that most trade takes place within geographic and national boundaries. On-line commerce attacks that premise at its core. Americans trade, not necessarily with other Americans, but with the Japanese, who, in turn, trade with the British and so forth.

Providing electronic money for the on-line environment is a challenge. What medium of exchange will be widely accepted within a global trading community? What unit of account will allow global traders to compare prices with ease and confidence?

In the absence of effective world government, it is hard to imagine who might issue a global monopoly money. The European Union encountered substantial economic and political difficulties in adopting the Euro, even though its member states had similar economies and cultures. Surely, the United Nations could not manage the same feat for the entire world. Many - perhaps most - nations would balk at granting the United Nations the power to fund activities through the (electronic) printing press and inflation.

A different solution seems likely in the short term. Nations are well aware that they earn seigniorage - that is, interest - on coins and paper bills in circulation. Thus, as trade goes electronic, nations will have ample incentive to issue their own monopoly monies in electronic form.

Once the Internet is flooded with alternative national monies, traders may find that exchanging from one to another is inefficient. Over time, they may come to prefer one currency that seems to enjoy the widest acceptance and greatest stability. Eventually, that one currency will emerge as the de facto global monopoly money. For example, dollars may come to dominate on-line commerce just as English has become the language of international trade, travel, journalism and diplomacy.

This development will threaten the seigniorage income and national prestige of other countries. Governments may respond by enacting laws to prevent citizens from using electronic money other than their own. But such restrictions will be difficult to enforce in a world of competing monies and strong encryption.

However, traders from other countries may also resist the electronic dollar. At best, they may view the electronic dollar as an offensive form of cultural imperialism; at worst, they may find themselves powerless to intervene, as the United States uses its currency to advance its own economic and political agenda.

To get around such problems, traders may shift to a system of competing currencies based on the same commodity. By providing a common unit of account, such a system may obviate the need for a common medium of exchange. To illustrate, suppose multiple issuers (whether public or private) produce electronic cash using gold as the base commodity. The currency of reliable issuers will exchange at par - one Microsoft gold unit for one Netscape gold unit, for example. The currency of unreliable issuers (those unwilling or unable to redeem their own currency) will trade at a discount. Monies trading at a discount will be less convenient and valuable, and will go out of use rapidly.

Computer technology makes it easier to convert from one unit of account to another. Electronic money is easy to store and transmit, reducing the cost of exchange. These developments will lessen the need for money monopolies, whether public or private.

Thus far, we have assumed that a common medium of exchange and unit of account will tend to be the most efficient form of money for the Internet. In other words, we have assumed money monopolies will continue to exist.

However, another path is possible if computers eliminate or reduce the transaction costs of making conversions among different units of account.

Consider how a currency-transparent browser may work in the future. A Japanese seller lists the prices of the goods he sells in yen on his web page. A buyer in the United States accesses the page, seeking information about goods and prices. His browser, noting that the prices are in yen, automatically contacts the web site of his bank, checks the current exchange rate and makes the calculation from yen to dollars. In other words, the seller writes his prices in yen, but the buyer reads them in dollars - thus overcoming the unit of account problem.

If our buyer decides to make the purchase, he still must convert his dollars to electronic yen - the requested medium of exchange. His bank will charge for this service. However, since it is relatively easy to store and transmit electronic information, the cost of operating an exchange service for electronic money should be much lower than the cost of running an exchange service for paper money. Presumably, the bank will react by lowering the exchange fee charged to the buyer. A drop in exchange fees may reduce the pressure to use a common medium of exchange.

In this example, both buyer and seller are using government monies. This is the most likely scenario, given that most transactions still take place in real space using paper money. If a consumer has to keep paper dollars in her pocket for everyday purchases, she may be more likely to prefer electronic dollars for on-line purchases.

However, as the years go by, more and more real space transactions will take place using smart cards and other electronic payment systems. This raises the possibility that Americans may one day hold electronic yen for use on-line - and in America.

More radically, electronic money may pave the way for the world Hayek envisioned. Private companies may begin to issue electronic currencies that are based on different commodity standards. Monies designed for general use will compete directly with each other for market share. Meanwhile, niche currencies will circulate within particular trades. For example, if an on-line community trades primarily in software, it may prefer currency that maintains a stable purchasing power relative to software.

In either case, private companies will obtain a competitive edge by designing their monies for anonymous use. Many traders will prefer currencies that protect against the prying eyes of both private parties and government officials.

How many competing monies, public or private, can commerce accommodate? One of us (Friedman) believes that dozens, hundreds, or even thousands of monies are possible - not only in virtual space, but in real space as well. He points out that the equivalent of a currency transaction browser is harder to produce in a store than on-line, but not impossible. For example, a customer might stroll through Safeway wearing virtual reality goggles that automatically convert prices to the desired units of account.

The other of us (Macintosh) is somewhat more conservative. She speculates that most traders will continue to be human beings - at least in the short term. She believes that, for psychological reasons, the average human being will be more comfortable working with five or six monies than five or six hundred.

How might governments react to such monetary proliferation? As explained above, some may ban competing monies in an effort to protect seigniorage and sovereignty. Moreover, governments are likely to react badly to anonymous monies that make it harder for them to monitor compliance with tax, immigration, employment or other laws that affect trade. Realistically, however, the very feature that makes such monies threatening - encryption - may make it impossible for governments to enforce the ban.

Technology will create conditions that tend to support monetary stability. First, ease of entry into the business of issuing electronic money will promote a healthy competition. Second, improved communication will make it easier to check the reputation of the issuer. Third, the ability to return electronic money for redemption at the speed of light will reduce the ability of issuers to engage successfully in hyperinflationary schemes. As a result of these technological developments, private monies will become more attractive to the public.

Let's return to the third function of money: a store of value. People prefer monies that are stable. As evidence of this, consider what happens in countries where the official local currency is inflated. Traders begin to use foreign money as their preferred medium of exchange. Efforts to outlaw foreign money are often ineffective and tend to create black markets. In some cases, foreign money emerges as a de

facto unit of account. For example, at one time it was common for long-term rentals in Israel to be priced in dollars rather than Israeli pounds.

A common charge leveled against the idea of private monies is that they will not be stable. Private companies will enrich themselves by accepting value from customers and then inflating the money supply.

One way to reduce this risk is through competition among issuers. As explained above, this is how private banks established a stable monetary and banking system in Scotland during the eighteenth century.

Effective competition is more likely in a world of electronic money for two reasons. First, entry into the business is relatively easy and inexpensive. Issuers need not invest in gold or manage bulky paper bills. Second, on-line technology drastically reduces the cost of information and communication. A user on one side of the globe can check the reputation of an issuer on the other side (or have an intelligent software agent check it for him in a fraction of a second while deciding whether to accept a proffered payment).

Another way to reduce the risk of inflation is through contract. An issuer can promise to redeem its money at a minimum level of value expressed in commodities or other currencies. Here again, technology makes the contractual solution work better. If an issuer begins to inflate its electronic money, disgruntled users can return the money for redemption at the speed of light.

Increased bandwidth may lead to the rise of virtual communities with their own idiosyncratic currencies. As bandwidth increases, and most Internet users gain access to real-time audio and video, we may witness the emergence of virtual communities defined by common interests or beliefs. Given the nature of the Internet, these virtual communities will have members from a variety of different countries. Rather than employ the official currency of any one nation, members may prefer to invent their own electronic money for circulation only within the community. Use of the idiosyncratic currency will help the community to form, express and maintain its own identity. Moreover, by encouraging members to trade with each other, the currency will build solidarity.

*Five Possible Futures for Money*

If the foregoing arguments are correct, money faces five possible futures:

1. A world with the same monopoly monies we have now, but in electronic form. Governments will enact laws outlawing the use of alternative currencies in an effort to protect seigniorage revenues, bolster national prestige and control the economic lives of their citizens. However, these laws will be hard to enforce.

2. A world with a single electronic money for on-line commerce. This outcome could be difficult to achieve in the absence of effective world government. However, in a competition among different nations, one currency - say, the electronic dollar - may emerge as the victor. The resulting unitary system will be very efficient, but may be perceived as culturally and economically oppressive.

3. A world with a single commodity base for a system of competing electronic monies. This system combines the benefits of competition with the simplicity of a common standard. Its disadvantage is that the single standard may not be the right one - and could be hard to change.

4. A world of multiple competing currencies, some public and some private, with a variety of different bases, exchanging at changing rates. The optimal number of currencies may depend on how effective computers are at reducing or eliminating the costs of conversion and exchange. This system will promote competition not only among monies, but also among monetary standards. If for some reason one standard turns out to have advantages over another, issuers can shift accordingly.

5. A world with multiple currencies and standards, each standard being identified with a virtual community. This outcome is more likely if improved bandwidth fosters the development of strong virtual communities.

Governments anxious to preserve their powers and prerogatives may push for outcome one. Powerful nations or groups of nations, like the United States or the European Union, may push for outcome two. However, we conclude that technological developments, along with the self-interest of users and enforcement difficulties, are going to push us towards outcomes three and four, or possibly, given the appropriate social developments, outcome five.

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