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NEW PAYMENT DEVICES AND GENERAL PRINCIPLES OF PAYMENT LAW

Gregory E. Maggs*

Consumers and businesses, at present, tend to use just a handful of familiar devices to pay debts, make purchases, and transfer funds. Consumers, for example, rarely employ anything other than cash, checks, credit cards, and debit cards. Businesses use each of these methods of payment and, more often than consumers, also move funds with wholesale wire transfers and letters of credit.²

More payment options, however, are becoming available. Advances in computers and communication technology are making possible the development and rapid implementation of a variety of new devices. For example, in some locations, consumers now can use stored-value cards—cards that contain electronic codes representing sums of money—to make many kinds of purchases.³ In addition, several companies recently have set up new payment systems to allow in-

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¹ See David B. Humphrey & Allen N. Berger, Market Failure and Resource Use: Economic Incentives to Use Different Payment Instruments, in The United States Payment System: Efficiency, Risk and the Role of the Federal Reserve 45, 77 (David B. Humphrey ed. 1990) (providing statistics on and explaining the use of different payment devices).

² See id. The Uniform Commercial Code (UCC) refers to wholesale wire transfers simply as "funds transfers." See U.C.C. Prefatory Note art. 4A (1995). Consumers can make wholesale wire transfers in certain instances. See Regulation E, 12 C.F.R. § 205.3(b) (1996) (stating exemption from the Electronic Fund Transfer Act). Some letters of credit serve a guaranty function as opposed to a payment function. See U.C.C. Prefatory Note art. 5 (1995) (discussing standby letters of credit).

³ See Valerie Block, Four Giants Join in New York Smart Card Test, Am. Banker, Apr. 11, 1996, at 1 (describing implementation of stored-value cards in various locations); Penny Lunt, The Smart Cards are Coming! But Will They Stay?, ABA Banking J., Sept. 1, 1995, at 46 (same).

dividuals and businesses to transfer funds over the Internet.⁴ More developments of this kind seem likely in the future.⁵

New payment devices present a challenge to the legal system. The Uniform Commercial Code (UCC) and a variety of federal statutes and regulations specify the rules governing most established payment devices.⁶ Because of their novelty, however, no codes or regulations comprehensively govern new payment devices.⁷ Although private contracts determine some of the rights and liabilities of the parties who use them, these contracts do not and often cannot specify all of the necessary rules.⁸

This Article attempts to address some of the legal problems associated with new payment devices. It suggests an approach that courts can follow when fashioning rules to govern the new devices. The approach rests on general principles of payment law, or the common ideas and policies that underlie the rules applicable to the various established payment devices.

The Article consists of five parts. Part I defines the term "new payment device," and then discusses several examples. The examples include stored-value cards and Internet payment devices created by DigiCash Inc. and First Virtual Inc. Part I also suggests reasons that these and other new payment devices should become increasingly popular in the future.

Part II argues that courts inevitably will need to create common law rules to resolve disputes over new payment devices. It explains that economic and other obstacles will prevent parties involved in pay-

⁴ See Saul Hansell, Today, Shoppers on Internet Get Access to Electronic Cash, N.Y. Times, Oct. 23, 1995, at D5; Jeff Frentzen, Internet-Based Payment Schemes are Starting to Catch Fire, P.C. Week, Sept. 4, 1995, at 16; Michael Wolff, Net Selling, Forbes, Aug. 28, 1995, at 30; Net Profits: The Electronic Soul Is Open for Business, Economist, July 1, 1995, at 50 (Survey 12); Andrew Singleton, Cash on the Wirehead, Byte, June 1, 1995, at 71; Amy Cortese & Kelley Holland, What's the Color of Cybermoney?, Bus. Wk., Feb. 27, 1995, at 36.

⁵ See Penny Lunt, Payments on the 'Net: How Many? How Safe?, ABA BANKING J., Nov. 1995, at 46; Steven Levy, The End of Money?, Newsweek, Oct. 30, 1995, at 62; Kelly Holland & Amy Cortese, The Future of Money, Bus. Wk., Jun. 12, 1995, at 66.

⁶ The UCC contains four articles that govern existing payment devices. See U.C.C. arts. 3 & 4 (1995) (checks); id. art. 4A (1989) (funds transfers); id. art. 5 (1995) (letters of credit). A variety of federal regulations complement the UCC. See Regulation CC, 12 C.F.R. §§ 229.1-42 (1996) (checks); Regulation E, id. §§ 205.1-.14 (1996) (consumer electronic funds transfers); Regulation J, id. §§ 210.1-.32 (checks and wire transfers). No statutes or regulations comprehensively regulate credit cards, but federal law does impose certain consumer protections. See 15 U.S.C. §§ 1642-1646, 1666i (1994).

⁷ See infra Part I.

⁸ See infra Part I.

ment transactions from including in private contracts all the rules necessary for governing new payment devices. Moreover, experience and other factors suggest that neither Congress nor state legislatures will enact codes or statutes to govern each new payment device. As a result, courts must develop many of the rules on their own.

Part III proposes and describes the approach that courts should use when developing common law rules to govern new payment devices. In the past, courts have created rules for new payment devices by guessing about the parties' unstated intentions or by analogizing the new payment devices to existing payment devices. To avoid difficulties associated with these methods, Part III argues that courts instead should attempt to discern general principles that animate the rules governing established payment devices. Courts then should apply these general principles to decide cases involving new payment devices.

Part IV illustrates the general principles approach. It considers several basic issues that could arise in transactions involving new payment devices. These issues include (1) whether the payor may stop or revoke payment; (2) whether the payee has a right of recourse against the payor if something goes wrong; and (3) whether the payor may assert claims against other participants in a payment transaction if the payee takes the money and fails to perform. For each of these issues, Part IV explains how a court could identify and use general principles of payment law to create common law rules to govern new payment devices.

Part V states a brief conclusion. It explains that, while the general principles approach will help courts decide many disputes, it will not resolve all issues that new payment devices might present. A need may exist, for example, to regulate payment devices to prevent their use in criminal activities, like money laundering, or to protect the interests of consumers. The general principles approach does not preclude legislatures from enacting statutes or agencies from promulgating regulations for these purposes. The approach merely helps courts to resolve private disputes in the absence of clear rules.

I. NEW PAYMENT DEVICES

For the purpose of this Article, "new payment devices" are mechanisms of making payment or transferring funds that have not become firmly rooted in the legal system. The term, in other words, applies to any devices not governed by statute, regulation, well-defined case law, or industry-wide standard contracts. It consequently does not include

established devices like cash, checks, credit cards, wholesale and consumer wire transfers, and letters of credit.

The following discussion describes in detail three prominent examples of new payment devices. It then explains the important distinction between new payment devices and the use of old payment devices in new ways. Finally, it presents some predictions about future developments in payment technology and practices.

A. Examples of New Payment Devices

Consumers and businesses can employ new payment devices in a variety of contexts. Some new devices function best in ordinary shopping environments where they provide a substitute for cash, checks, credit cards, and debit cards. Other new payment devices function only on computer networks. Three examples illustrate a few of the possibilities:

1. Stored-Value Cards

Consumers increasingly are making payments with "stored-value cards" (also called "prepaid cards" or "value-added cards").⁹ These cards use a magnetic strip or a microchip to hold an encoded number representing a sum of money.¹⁰ The issuer of the card initially sets the number to reflect the dollar value of the card.¹¹ As the consumer makes purchases, a machine reduces the number to reflect the amount of money spent.¹² When the number reaches zero the card ceases to have any value.

For example, a consumer might buy a stored-value card from an issuer for \$20. The issuer would put a code representing \$20 on the card. When the holder uses the card to buy a \$5 product, the seller would run the card through a device that would change the value stored on the card from \$20 to \$15. The consumer could then make \$15 worth of additional purchases.

Stored-value cards already have become common in several areas of commerce. For example, at many libraries, patrons may purchase copy cards from vending machines.¹³ The copy cards use a magnetic

⁹ For a current and concise description of stored-value cards, see Supplementary Information, 61 Fed. Reg. 19,696, 19,698 (1996); see also Robert J. Egan, Banking in Cyberspace: Smart Cards and Electronic Money, 912 PLI/CORP. 473, 477-78 (1995) (defining numerous terms and concepts associated with stored-value cards).

¹⁰ Supplementary Information, 61 Fed. Reg. at 16,698.

¹¹ See id.

¹² See id.

¹³ See id.

strip to hold a code representing a dollar figure. Patrons may use the card to make photocopies. For every copy made, a card reader reduces the code on the card by the cost of making a copy (typically about ten cents). Patrons may increase the value of the card by inserting the card and additional cash into a machine.

Commuters, similarly, use stored-value cards to pay for public transportation in many areas.¹⁴ For example, in Washington, D.C. and San Francisco, California, subway riders may purchase farecards from vending machines. These cards, like copy cards, use a magnetic strip to hold a code indicating their value. Turnstiles at the entrance and exit of the subway platforms read the cards and subtract the applicable fares.

Stored-value cards make routine purchases more convenient. For instance, in the case of copy cards and subway fare cards, they eliminate the need for users to handle a pocketful of coins. The library and subway systems, moreover, do not require third-party authorization for each use, as do some credit cards and debit cards. The payment process, as a result, proceeds much quicker.¹⁵

Stored-value cards have some disadvantages. Most cards, for instance, present the same risks as cash. As result, users tend to worry about putting too much money on them. A patron who loses a subway card with \$10 on it, for instance, suffers the same loss as someone who loses a \$10 bill. Stored-value cards, as a result, do not work well (at present) for large purchases.

Three very important developments presently are occurring with respect to stored-value cards. First, an increasingly wider variety of businesses are beginning to issue and accept stored-value cards. For example, in addition to copy cards and subway farecards, consumers now can buy cards usable to make telephone calls, rent movies, buy gasoline, and wash and dry clothes at laundromats.¹⁷

Second, various organizations, including the VISA and Master-Card Corporations, are developing generic stored-value cards that cardholders may use to make purchases from many different

¹⁴ See id.

¹⁵ See Lunt, supra note 3, at 46.

¹⁶ See id. But see Egan, supra note 9, at 473 (suggesting that liability for a lost card remains an open issue).

¹⁷ See Christine Dugas, Prepaid Plastic For Purchases Proliferates, USA Today, Dec. 22, 1995, at 01B; James McNair, A New Spin on Laundry: Coin Boxes Replaced by Card Readers, MIAMI HERALD, Jan. 12, 1995, at 1C; Supplementary Information, 61 Fed. Reg. at 19,698; Egan, supra note 9, at 473.

merchants.¹⁸ At present, a person needs one card to make photocopies and another card to pay a subway fare. In the future, however, numerous merchants will accept the same card. This development will make stored-value cards far more convenient.¹⁹

Third, stored-value cards may become programmable. Most stored-value cards currently utilize a magnetic strip to hold their codes. Soon, however, more stored-value cards will have tiny microprocessors that can perform various functions, such as limiting unauthorized usage.²⁰ This development may make the cards less vulnerable to theft and, accordingly, facilitate their use in transactions involving larger sums of money. Banks and merchants refer to programmable stored-value cards as "smart cards."²¹

The legal system, unfortunately, does not address stored-value cards in a clear fashion. The cards do not come within the scope of the UCC because they do not satisfy the formal definitions of negotiable instruments, ²² funds transfers, ²³ or letters of credit. ²⁴ The cards also do not qualify as credit cards because consumers prepay the value of the cards. ²⁵

Most stored-value cards, moreover, do not come within the ambit of the Electronic Funds Transfer Regulation (Regulation E). Regulation E, as presently written, applies only to the devices, like debit cards, that facilitate the transfer of funds into or out of a consumer's bank account.²⁶ Stored-value cards of the kind issued by mass transit authorities and libraries operate without the use of banks or accounts.

The Federal Reserve Board, indeed, recently has proposed amendments to Regulation E that would clarify the status of stored-

¹⁸ See Block, supra note 3, at 1 (describing large scale pilot tests of open systems in the United States and abroad); Lunt, supra note 3, at 46 (same); see also Egan, supra note 9, at 473, 477 (describing these kinds of cards as "open system" stored-value cards).

¹⁹ See Lunt, supra note 3, at 46, 48 (noting that consumers want the ability to use a single cards at more stores); Dugas, supra note 17, at 01B (same).

²⁰ Lunt, supra note 3, at 46.

²¹ See id.; Egan, supra note 9, at 347; Block, supra note 3, at 1.

²² See U.C.C. § 3-104(a) (1995) (defining a negotiable instrument as "a written promise to pay money meeting several specified formal requirements").

²³ See id. § 4A-104(a) (1989) (defining a funds transfer as a series of payment orders from an originator through the originator's and beneficiary's banks to the beneficiary).

²⁴ See id. § 5-102(a) (10) (1995) (defining a letter of credit).

²⁵ See 15 U.S.C. § 1602(k) (1994) (defining "credit card" as a device used for "obtaining money, property, labor, or services on credit").

²⁶ See Regulation E, 12 C.F.R. § 205.2(g) (1993).

value cards.²⁷ The amendments specifically exempt from coverage any stored-value card systems in which balances are maintained only on the card and not in a separate database.²⁸ The amendments also exempt any cards that cannot store more than \$100 in value at any given time, even if the issuer maintains a separate record of the card's balance.²⁹ The amendments would impose minimal disclosure requirements for other card systems.³⁰

Most rights that users have with respect to stored-value cards, as a result, come only from private contracts. Unfortunately, in many cases no discussion of contract terms occurs when a purchaser buys or uses a card. Subway patrons, for example, buy cards by the millions and never talk about the terms governing the cards.

True, even without elaborate discussion, some implied contractual terms may exist. For example, the issuer of stored-value cards presumably makes an implicit promise to accept payments made by the card. The purchaser likewise presumably warrants, in using the card, that no one has tampered with the codes stored in the magnetic strip. Plenty of room for disagreement, nonetheless, exists over the content of such implied terms.

2. Ecash

DigiCash, Inc. has invented and successfully implemented a new payment device called "Ecash" for making purchases over the Internet.³¹ To use Ecash, a customer first must open and deposit money

²⁷ Electronic Fund Transfers, 61 Fed. Reg. 19,696 (1996) (to be codified at 12 C.F.R. pt. 205) (proposed Apr. 19, 1996).

²⁸ See id. at 19,704 (proposing a new 12 C.F.R. § 205.16(b) that would apply only to cards for which a balance is separately maintained). The Federal Reserve System refers to these cards as "off-line accountable" cards. See id. at 19,701.

²⁹ See id. at 19,704 (proposing a new 12 C.F.R. § 205.16(c) that would create a \$100 exemption).

³⁰ See id. (proposing a new 12 C.F.R. § 205.16(d) that would require disclosures for these so-called "off-line accountable" systems). For the treatment of other cards, which require authorization and thus resemble debit cards more than stored-value cards, see id. at 19,704-05 (proposing a new 12 C.F.R. § 205.16(e) to govern so-called "on-line accountable" cards).

³¹ DigiCash claims "Ecash" as a trademark. For primary source information about Ecash, see DigiCash Ecash—about Ecash (visited Nov. 26, 1996) http://www.digicash.com/ecash/about.html. For overviews of the system, see Hansell, supra note 4, at D4; Singleton, supra note 4, at 74; Alan Deutschman, Money Wants to Be Anonymous, WORTH, Oct. 1995, at 95.

in an account at a bank that participates in the Ecash system.³² The customer can withdraw funds from the account by asking the bank to issue Ecash "coins."³³ These coins come in various denominations, like \$1, \$5, and \$10. The coins consist of codes that the customer stores on a home computer.³⁴

The customer spends Ecash coins by transmitting them to merchants over the Internet.³⁵ The merchant then presents the coins to the issuing bank, which examines their codes to verify that it actually issued them.³⁶ Because the customer has the ability to make copies of the coins, the bank also confirms that it previously has not redeemed a coin having the same codes.³⁷ If the bank does not detect a problem, the bank accepts the coin and credits the merchant's bank account with dollars.³⁸ Otherwise, the bank tells the merchant that the coin is invalid.³⁹

Ecash resembles stored-value cards in many respects. Consumers prepay the value of the Ecash coins and then later spend them. Ecash differs from stored-value cards primarily in that the codes representing the value of the coins are stored in a computer rather than on a physical card. Like stored-value cards, Ecash would not seem to fall within the scope of the UCC or the federal statutes regulating credit cards. Again, it simply does not meet the formal requirements for coverage under those laws.

Regulation E, moreover, would appear to govern only part of an Ecash transaction. The regulation may cover a customer's initial request to withdraw funds in the form of Ecash coins. The request constitutes an "electronic funds transfer" because it is a "transfer of funds . . . that is initiated through [a] . . . computer . . . for the purpose of ordering, instructing, or authorizing a financial institution to debit . . . an account." The consumer, in particular, tells the issuing bank to take money out of his or her account and to issue Ecash coins.

Once the customer receives the coins, however, the law does not regulate the spending and verification process. At that point, the

³² DigiCash Ecash—Ecash issuers (visited Nov. 26, 1996) http://www.digicash.com/Ecash/Ecash/issuers.html (listing participating banks worldwide that accept Ecash).

³³ DigiCash Ecash—about Ecash (visited Nov. 26, 1996) http://www.digicash.com/Ecash/intro/Ecash_intro.html>.

³⁴ See id.

³⁵ See id.

³⁶ See id.

³⁷ See id.

³⁸ See id.

³⁹ See id.

⁴⁰ See 12 C.F.R. § 205.2(g).

money already has come out of the customer's account and the regulation has nothing to say about it. The rules governing these aspects of Ecash transactions, accordingly, again come only from the express or implied contracts that merchants, customers, issuing banks, and DigiCash make with each other.⁴¹

3. First Virtual

First Virtual Holdings Inc. has developed an alternative payment system to facilitate transactions on the Internet.⁴² The system uses a combination of credit card charges, fund transfers, and email messages to enable consumers to pay merchants for goods or services advertised on the Internet. The system combines safety with elegant simplicity.

Before using the First Virtual payment system for the first time, buyers and sellers must apply for service.⁴³ To obtain service, a buyer needs to have a credit card and an Internet email address.⁴⁴ Buyers apply for First Virtual service by calling First Virtual on the telephone and giving the company their credit card information.⁴⁵ First Virtual then assigns a personal identification number to the buyer called a "VirtualPIN."⁴⁶

Sellers apply to First Virtual by sending the company a completed form along with a small fee (presently \$10).⁴⁷ The form asks the seller to supply the number of a checking account that will accept direct deposits from the United States Automated Clearing House system.⁴⁸ Sellers need to have an Internet email address, but do not need to have authority to accept credit cards.⁴⁹

A buyer who has obtained a VirtualPIN can pay a seller who has applied for First Virtual service through a simple process. The buyer

⁴¹ DigiCash licenses its software to banks. Banks then allow merchants and customers to open bank accounts. Each bank may impose slightly different requirements. Customers and merchants make contracts with each other when they use Ecash.

⁴² For primary information about the First Virtual systems, see FV Homepage (visited Nov. 26, 1996) http://www.fv.com. For summaries of the system, see Singleton, supra note 4, at 74.

⁴³ See FV: Payment System Summary (visited Nov. 26, 1996) http://www.fv.com/info/intro.html (summarizing the process for becoming a buyer and seller).

⁴⁴ See id.

⁴⁵ See id.

⁴⁶ Id.

⁴⁷ See id.

⁴⁸ See id.

⁴⁹ See id.

sends the VirtualPIN to the seller by email.⁵⁰ The seller, upon obtaining the buyer's VirtualPIN, sends an email message to First Virtual.⁵¹ The email message contains the buyer's VirtualPIN and tells First Virtual the price of the sale.⁵²

When First Virtual receives the seller's email message, it attempts to verify the transaction. First Virtual performs this process by sending an email message to the buyer.⁵³ This email message indicates the name of the seller and the amount of the transaction. The message asks the buyer to confirm the transaction.⁵⁴

If the customer confirms the sale, First Virtual then takes two steps to effect payment. First, using the information previously supplied by the buyer, First Virtual charges the buyer's credit card by the amount of the payment.⁵⁵ Second, First Virtual transfers to the seller's bank account the purchase price minus a small transaction fee.⁵⁶ In this way, the buyer pays, the seller obtains payment, and First Virtual receives compensation for its services.

Some aspects of a First Virtual transaction fit comfortably within the rules governing existing payment devices. First Virtual, for instance, must follow the rules governing credit cards when it charges the buyer's account. It also must comply with the various requirements involved in transferring funds to the seller's account.

The method of sending email messages for initiating and confirming the transaction, however, does not fall under any statutes or regulations. The email message that the buyer sends to the seller closely resembles a "payable through" draft as described in article 4 of the UCC.⁵⁷ In a payable through draft transaction, a bank must check with the drawer of an instrument before paying it.⁵⁸ The First Virtual transaction follows the same pattern. Yet article 4 does not govern the

⁵⁰ See id.

⁵¹ See id.

⁵² See id.

⁵³ See id.

⁵⁴ See id.

⁵⁵ See id.

⁵⁶ See id.

⁵⁷ See U.C.C. § 4-106 (1995).

⁵⁸ For example, an insurance company may issue a payable through draft to a policy holder in settlement of a claim. The policy holder will take the check to the insurance company's bank. The bank will then present the instrument to the insurance company, usually by calling the insurance company on the telephone. If the insurance company agrees to make the payment, the bank will charge the company's account and pay the payee. Although somewhat cumbersome, payable through drafts serve an important purpose. In particular, they eliminate the need for a drawer like an insurance company to keep large sums of money in a checking account. If the

email messages involved in First Virtual transaction because they do not meet the formal definitions of a "negotiable instrument"⁵⁹ or an "item."⁶⁰ Instead, the messages merely contain the buyer's VirtualPIN and the amount of the payment.

Consequently, as with stored-value cards and Ecash, only private contracts specify the rules governing certain aspects of First Virtual transactions. First Virtual, in fact, has created standard agreements that it makes with buyers and sellers.⁶¹ Buyers and sellers may also make contracts with each other when entering transactions. These contracts, however, probably do not resolve all possible conflicts.

B. Old Payment Devices Used in New Ways

In recent years, banks and businesses have attempted to develop new ways to make payments using well-established payment devices. This trend, unlike the creation of new payment devices, generally does not pose much of a challenge to the legal system. The rules governing existing payment devices, for the most part, operate adequately in many different contexts.

Many consumers, for example, now use software provided by their banks to pay their monthly bills.⁶² Citicorp, Inc.'s "Direct Access" software is typical.⁶³ Users call up the Citibank computer from their homes and inform the bank whom to pay and how much to pay them. Citibank electronically debits the users' accounts and then

drawer needs more money to pay its drafts, it can transfer more funds into the account before authorizing payment.

⁵⁹ U.C.C. § 3-102 (1995) (stating that article 3 applies to negotiable instruments); id. § 3-104(a) (defining a negotiable instrument to require a promise or order); id. § 3-103(a)(6) (defining order as "a written instruction to pay money"); id. § 3-103(a)(8) (defining a promise as "a written undertaking to pay money").

⁶⁰ Id. § 4-104(a) (9).

⁶¹ See First Virtual Buyer Terms and Conditions (visited Nov. 26, 1996) http://www.fv.com/pubdocs/fineprint-buyer.txt (stating contract between First Virtual and buyers); First Virtual Holdings Incorporated Pioneer Seller Terms and Conditions (visited Nov. 26, 1996) http://www.fv.com/pubdocs/fineprint-seller.txt (stating contract between First Virtual and sellers).

⁶² See Electronic Fund Transfers, 61 Fed. Reg. 19,696, 19,696 (1996) (Board of Governors of the Federal Reserve) (discussing "home banking services"); Saul Hansell, Banking at Home: Once More, with Feeling, N.Y. Times, Feb. 25, 1996, § 3, at 1 (describing recent industry trends); Walter S. Mossberg, Banking by PC Doesn't Do Enough to Ease a Grim Task, Wall St. J., Dec. 7, 1995, at B1 (reviewing software); Jared Sandberg, American Express Goes On-Line for Card Holders, Wall St. J., Jan. 30, 1995, at A3 (describing new system).

⁶³ Citibank claims "Direct Access" as a trademark. For information on the system, see Saul Hansell, *Citibank Will End Most Fees on Electronic Transactions*, N.Y. TIMES, May 24, 1995, at D1.

makes the requested payments, either by using a funds transfer or by issuing checks. Other companies have made available similar software.⁶⁴

Despite the novelty of these bill payment systems, they generally do not qualify as new payment devices for the purpose of this Article. The systems, although new in format, come within the scope of well-established legal rules. Regulation E governs home banking transactions to the extent that they involve consumer electronic funds transfers. Articles 3 and 4 of the UCC govern them to the extent that they involve checks. 66

Comparable developments have occurred on the Internet with respect to credit cards. Instead of paying for goods or services using new payment devices like Ecash or a VirtualPIN, many Internet users simply transmit their credit card information.⁶⁷ To prevent unauthorized persons from obtaining access to the information while it travels over the Internet, several companies—including Netscape, Inc.⁶⁸ and Cybercash, Inc.⁶⁹—have developed special encryption software. The software converts the credit card information into a secret code, thus reducing worries about credit card fraud.

Like the innovative systems for paying bills using electronic wire transfers and checks, systems designed to encrypt and then send credit card information over the Internet do not qualify as new payment devices. The rules that govern credit card information sent over the telephone or by mail should apply to credit card information transmitted from computer to computer. Although the encryption process may have advantages, it does not present important new questions to the legal system.

Courts, accordingly, should observe caution when confronting developments in payment systems. Genuinely new payment devices require special attention, as the following parts of this Article explain.

⁶⁴ See Wayne Kawamoto, Software You Can Bank On, Computer Shopper, Mar. 1, 1996, at 508 (reviewing popular software packages supplied by 4Home Productions, Meca Software, Microsoft Corp., and Intuit); Hansell, supra note 62, § 3, at 1 (describing services offered by other banks).

⁶⁵ See Electronic Fund Transfers, 61 Fed. Reg. at 19,696-97 (describing the application of Regulation E to home banking).

⁶⁶ See U.C.C. § 3-102(a) (1995) (defining the scope of article 3); id. § 4-102 (defining the applicability of article 4).

⁶⁷ See Jeffrey Kutler, Currency of the Internet Realm? So Far, It's Plastic, Am. Banker, Sept. 21, 1995, at 1.

⁶⁸ See On Security (visited Jan. 15, 1997) http://home.netscape.com/info/security-doc.

⁶⁹ See Cybercash Home (visited Jan. 15, 1997) http://www.cybercash.com>.

By contrast, old payment devices—such as electronic funds transfers, checks, and credit cards—generally fall within the scope of existing legal rules even when employed in new contexts.

C. Predictions for the Future

Some people looking at new payment devices like those described above have suggested that they might bring about the end of money as we know it. Others, however, have cautioned about overestimating the benefits of new technology. Regardless of their ultimate impact, however, efforts to create and implement new payment devices almost certainly will continue for two reasons.

First, technological advances are making new payment devices easier to create and implement. Attempts to develop new payment devices in the past had to overcome great difficulties. For example, when Bank of America wanted to issue the first bank credit cards in California, it faced huge technical problems in getting the project off the ground. It had to organize thousands of potential cardholders and merchants, and it had no convenient way to test the project or to prevent and detect fraud.⁷²

Computers and improved communication networks largely can solve these problems. They can create simulated environments that allow developers to experiment with new products. Indeed, as one writer has put it, the Internet "is proving to be a tremendous forcing-ground for ideas and experiments that, if they succeed, will have implications extending far beyond the Internet itself."⁷³ For example, DigiCash conducted a massive on-line experiment before it allowed issuers to use Ecash for real payments.⁷⁴ Computers also can make possible new security measures, such as instant encryption and instant verification of codewords. These factors will enable developers to devise new and better payment systems with less difficulty.

Second, new payment devices potentially could generate massive revenues for their developers. Americans presently make hundreds of

⁷⁰ See, e.g., Levy, supra note 5, at 62; Holland & Cortese, supra note 5, at 66; Paul Maidment, The Age of Cybercash: E-Money Will Change Our Lives—Once it Becomes More than Just E-Payments, Newsweek, Dec. 26, 1994, at 128.

⁷¹ See, e.g., Daniel Pearl, Futurist Schlock: Today's Cyberhype Has a Familiar Ring, WALL St. J., Sept. 7, 1995, at A1 (arguing that "glowing views of the Internet ignore a very old lesson" about the pitfalls of predicting the benefits of new technology).

⁷² See Joseph Nocera, The Day the Credit Card Was Born, WASH. POST. MAG., Dec. 4, 1994, at 17, 42 (describing the implementation of the Bank of America credit card).

⁷³ See Electronic Money: So Much for the Cashless Society, Economist, Nov. 26, 1994, at 21.

⁷⁴ See Hansell, supra note 4, at D5.

trillions of dollars in payments each year.⁷⁵ Banks and other firms profit from these payments in a wide variety of ways. Inventors and marketers, accordingly, have an incentive to develop new payment devices to compete with the existing devices and capture some of their business.

For example, some firms earn money by charging payors or payees a transaction fee in connection with payment devices. Credit card issuers or processors, for example, charge merchants a percentage of the sales price for processing credit card slips.⁷⁶ Banks, similarly, charge a fee for each cashier's check they issue and each wire transfer they send. Developers of new payment devices similarly might make money from transaction fees. Indeed, as noted above, First Virtual charges sellers a small percentage of every sale.⁷⁷

The possible revenues from transaction fees almost stagger the imagination. Every year, Americans make more than 5 billion credit card payments, write more than 45 billion checks, and effect an even larger number of cash payments.⁷⁸ If a new payment device could lure away even a small percentage of these transactions, tiny fees would produce large sums.

Other firms benefit from the "float" of funds associated with payment devices. A float is a period of time in which a firm may use money without paying interest.⁷⁹ Issuers of traveler's checks, for example, sell the checks at face value. They then have interest-free use of the proceeds until someone presents the instruments for redemp-

⁷⁵ See Humphrey & Berger, supra note 1, at 77.

⁷⁶ See Suzanne Oliver, The Battle of the Credit Cards, Forbes, July 1, 1996, at 62, 65 (noting that merchants currently pay an estimated average fee of 1.9% on Visa and Mastercard purchases, and a fee of 2.5% on American Express purchases); Jeremy Quittner, Processing Paper on Wane, But Still Lucrative, Am. Banker, Nov. 1, 1996, at 10 (discussing factors that affect the size of fees charged to merchants).

⁷⁷ See First Virtual Payment System Summary (visited Nov. 26, 1996) http://www.fv.com/info/intro.html (summarizing the process for becoming a buyer and seller).

⁷⁸ See Humphrey & Berger, supra note 1, at 77 (giving statistics on the volume of cash transactions). See also Daniel Akst, In Cyberspace, Nobody Can Hear You Write a Check, L.A. Times, Feb. 4, 1996, at 20 (noting that cash still accounts for 80% of payment transactions in this country).

⁷⁹ See Patrick Frazer, Plastic and Electronic Money: New Payment Systems and Their Implications 165-73 (1985); John M. Veale & Robert W. Price, Payment System Float and Float Management, in The Payment System: Design, Management, and Supervision 145-63 (Bruce J. Summers ed. 1995); Humphrey & Berger, supra note 1, at 50-51.

tion. Developers of new payment devices, such as stored-value cards and Ecash, may hope to benefit from a similar float of funds.⁸⁰

Floats, like transaction fees, also potentially could produce large revenues. American Express Corp., the largest seller of traveler's checks, at any time has outstanding over \$4 billion in unredeemed traveler's checks.⁸¹ It can invest a large portion of this money and earn interest or dividends. Issuers of stored-value cards would like to capture some of the traveler's check business. They also would like to persuade Americans to use their cards instead of cash. Consumers and businesses presently spend more than \$1.4 trillion in cash each year;⁸² a float on even a small portion of that money could enable the issuers to earn a huge income.

Still other firms make money by charging interest on funds lent in connection with payment devices. Credit card issuers, for example, lend more than \$470 billion each year to their customers.⁸³ Surely an incentive exists for someone to invent and implement an alternative payment system that would capture some of the profits now enjoyed by credit card issuers on these loans.

Finally, some firms have increased their sales of goods and services by making available more convenient payment devices. For example, transit systems issue stored-value cards to simplify the payment process. They presume that people will ride the subway more often if they can pay easily. Other new payment devices also might increase sales. For example, some writers believe that Internet users would pay a few cents for every page they read, if only a convenient method of payment existed.⁸⁴ Given the millions of Internet users who access

⁸⁰ See Lunt, supra note 3, at 47 (discussing potential revenue from float and other aspects of stored-value cards).

⁸¹ See John Eckhouse, 100 Years of Travelers Checks: Sales Continue to Rise, But Fierce Competition is Challenging Issuers, S.F. Chron., Aug. 3, 1991, at B1.

⁸² See Humphrey & Berger, supra note 1, at 1.

⁸³ See Lee Richardson, Let a Thousand Credit Cards Bloom, WALL St. J., May 23, 1995, at A22. The credit card issuers do not earn interest on all of these funds because many card holders pay off the loans during the industry-standard 30 day grace period. See Oliver, supra note 76, at 66 (noting that nearly 40% of credit card holders pay their balances in full each month).

⁸⁴ See, e.g., Arnold Kling, Banking on the Internet: Would You Pay 20 Cents to Read the Rest of this Article?, http://gnn.digital.com/gnn/meta/finance/feat/bank.intro. html>; Bob Metcalfe, Internet Digital Cash—Don't Leave Your Home Page Without It, Infoworld, Mar. 13, 1995, at 55.

documents on the Internet every day,85 substantial aggregate sales might take place.

II. INEVITABLE NEED FOR COMMON LAW RULES

As new payment devices proliferate and their use increases, legal questions will quickly arise. Users of the devices will want to know the requirements and risks associated with each device so they can choose appropriately among the options available to them. Inventors and developers will want to know all of the relevant legal rules so that they can create and implement new devices. Courts and lawyers also will need rules so that they can resolve disputes as they arise.

Contracts made by the participants in payment transactions will specify many of the necessary legal rules. The following discussion, however, argues that private contracts invariably will have some shortcomings. Moreover, although the states or the federal government in theory could remedy these shortcomings by statute, various practical problems will prevent enactment of applicable legislation. Courts, as a result, inevitably will have to fashion many of the rules necessary to govern new payment devices in a common law manner.

A. Contracts

Users of new payment devices sometimes rely on detailed form contracts to determine the rules governing their use. For example, as noted above, First Virtual requires buyers and sellers to accept lengthy written agreements covering VirtualPINs.⁸⁶ The legal system should encourage this practice because detailed contracts can reduce uncertainty and prevent disputes. Yet private contracts are not panaceas that can eliminate all disputes in payment transactions.

Contracts have four distinct shortcomings as a source of law. First, the participants in payment transactions sometimes cannot form contracts with each other. A typical funds transfer provides a simple example. In a funds transfer, the "originator" of the transaction issues a payment order to its own bank, the "originator's bank." The order typically directs the bank to transfer funds to a beneficiary. The bank may use one or more "intermediary banks" to effect the transfer.88

⁸⁵ See Jared Sandberg, On-Line Population Reaches 24 Million in North America, WALL St. J., Oct. 30, 1995, at B3; Jennifer Tanaka & Brad Stone, Who's on the Web, Newsweek, Nov. 13, 1995, at 14 (reporting an estimate of 37 million).

⁸⁶ See supra Part I.A.3.

⁸⁷ U.C.C. § 4A-104(c)-(d) (1995).

⁸⁸ Id. § 4A-104(b).

Unless otherwise directed, the originator's bank has discretion to choose which intermediary bank or banks to use to move the funds.⁸⁹

This arrangement prevents the parties from specifying all of the rules necessary for the formation of adequate contracts. Because the originator does not know which intermediaries its bank will choose, the originator generally cannot form a contract with them. The legal system, consequently, needs to specify the rules governing the intermediary banks' actions. Article 4A of the UCC performs this function.⁹⁰

Negotiable instruments transactions supply another illustration. Suppose a drawer writes a check, making it payable to bearer, and then accidentally loses it. A stranger finds the check and negotiates it to a good faith purchaser for value. The drawer and the good faith purchaser could not have formed a contract in advance that would specify the good faith purchaser's rights. The legal system, as a result, needs to step in and establish rules. Article 3 of the UCC accomplishes this task.⁹¹

Comparable obstacles to forming contracts could arise with new payment devices. For example, a person could lose a stored-value card and someone else could find it. Or a stranger could gain access to Ecash codes. Contracts realistically cannot specify all of the rights of the parties involved in these situations because the parties do not deal with each other. Courts will have to look to other sources to determine the applicable rules.

Second, even when the parties can form a contract, transaction costs may prohibit them from agreeing upon detailed terms. People making payments generally want speedy transactions. Dickering over the terms of payment often would make the process prohibitively slow. For example, a customer who writes a check to a grocery store does not want to spend time with the manager of the store discussing transfer and presentment warranties or the rights of the store upon default. The customer simply wants to write the check and go home. If the customer and the store had to discuss all of the rules regarding checks before using them, checks would become impractical. Statutes solve this problem by specifying the promises and warranties that a drawer of a check makes and the rights that the payee has.⁹²

⁸⁹ See id. § 4A-302(b).

⁹⁰ See id. U.C.C. Prefatory Note art. 4A (explaining the need for article 4A).

⁹¹ See, e.g., id. § 3-301 (1995) (specifying who may enforce an instrument).

⁹² See id. § 3-414 (specifying the obligation of the drawer); id. § 3-416 (specifying warranties made upon the transfers of instruments).

Users of new payment devices similarly may find agreeing upon detailed contractual terms impossible. People who purchase stored-value cards, for instance, often buy them from vending machines. Some machines do not say anything about contractual terms. Other machines contain placards stating a few contractual terms, but not nearly enough to resolve complex disputes. Very few, for example, discuss the rights that the buyer will have if the issuer becomes insolvent. That subject might prove too embarrassing. Similarly, the placards generally do not discuss warranties that the buyer will make in transferring the card or using it for payment. No one would have time to pay attention to this kind of detail.

Third, even when parties can sit down to make detailed contracts, they still may leave gaps, conflicts, and ambiguities in their agreements. This problem plagues contracts in many contexts.⁹⁸ In the case of new payment devices, it seems especially likely. Because of the novelty of new payment devices, no one can know in advance exactly what kinds of disputes will arise. Courts again will have to look at sources other than the contracts themselves for answers.

Fourth, society often does not want to allow parties to have the freedom to specify all of the terms of their contracts. Some restrictions on the terms of payment transactions may promote economic efficiency. Article 3 of the UCC, for instance, forbids parties to alter some of the rules governing checks because the automated check processing system requires uniformity. For instance, drawers cannot make checks non-negotiable.⁹⁴

Other restrictions on payment devices may serve distributive or paternalistic objectives.⁹⁵ For example, federal statutes and regulations limit consumer liability for the unauthorized use of credit cards

⁹³ The official commentary to the *Restatement (Second)* of *Contracts* suggests several ways that omissions of terms could occur: "The parties to an agreement may entirely fail to foresee the situation which later arises and gives rise to a dispute; they then have no expectations with respect to that situation, and a search for their meaning with respect to it is fruitless. Or they may have expectations but fail to manifest them, either because the expectation rests on an assumption which is unconscious or only partly conscious, or because the situation seems to be unimportant or unlikely, or because discussion of it might be unpleasant or might produce delay or impasse." RESTATEMENT (SECOND) OF CONTRACTS § 204 cmt. b (1979).

⁹⁴ See U.C.C. § 3-104(d) (1995).

⁹⁵ See Duncan Kennedy, Distributive and Paternalist Motives in Contract and Tort Law, with Special Reference to Compulsory Terms and Unequal Bargaining Power, 41 Md. L. Rev. 563 (1982) (defining and discussing paternalism and distribution as substantive objectives of the legal system).

and debit cards to \$50 in most instances.⁹⁶ The proponents of these laws believe that banks should bear the additional costs of unauthorized uses and that consumers should not have the power to agree to higher limits of liability.⁹⁷ For all of these reasons, contracts alone cannot specify all of the rules necessary for new payment devices.

B. Specific Codes

Congress and the state legislatures traditionally have overcome the shortcomings of contracts by adopting specific codes to govern popular payment devices. Articles 3 and 4 of the UCC, for example, spell out the rules governing checks.⁹⁸ Article 4A states the rules governing funds transfers.⁹⁹ Article 5 states the rules for letters of credit.¹⁰⁰ Federal statutes and regulations supplement these articles,¹⁰¹ and also state rules applicable to consumer electronic fund transfers and credit cards.¹⁰²

In theory, just as the federal and state governments created statutes and regulations to govern these devices, they also could create detailed new codes to govern new payment devices. For example, they could ask the National Conference of Commissioners on Uniform State Laws (NCCUSL) and the American Law Institute (ALI) to draft an article 4B for the UCC to govern stored-value cards, an article 4C to govern Ecash, and an article 4D to govern VirtualPINs. The new articles could include all of the rules that parties might fail to specify by contract.

Although nothing prevents Congress and the states from taking this approach, they probably will not. Developing and implementing detailed codes requires great technical, financial, and political resources. The NCCUSL and ALI took many years to draft and imple-

⁹⁶ See 15 U.S.C. § 1643 (a)(1)(B) (1994) (credit cards); 12 C.F.R. § 226.12(b)(1) (1995) (credit cards); id. § 205.6(b) (1996) (debit cards).

⁹⁷ See Robert D. Cooter & Edward L. Rubin, A Theory of Loss Allocation for Consumer Payments, 66 Tex. L. Rev. 63 (1987) (discussing in depth the problem of consumer protection in payment law).

⁹⁸ See U.C.C. \S 3-102 (1995) (defining the scope of article 3); id. \S 4-102 (defining the applicability of article 4).

⁹⁹ See id. § 4A-102 (defining the subject matter of article 4A).

¹⁰⁰ See id. § 5-103 (defining the scope of article 5).

¹⁰¹ See Regulation J, 12 C.F.R. §§ 210.1-.32 (1996) (regulating collection of checks and funds transfers); Regulation CC, id. § 229.1-.42 (regulating availability of funds and collection of checks).

¹⁰² See 15 U.S.C. §§ 1637, 1642-45, 1666-66j (1994) (credit cards); id. §§ 1693-93r (consumer electronic funds transfers); Regulation E, 12 C.F.R. §§ 205.1-.14 (1996) (consumer electronic funds transfers); Regulation Z, id. §§ 226.1-.16 (credit cards).

ment each article of the UCC.¹⁰³ The task, moreover, involved the efforts of leading scholars who could spend years on the project.¹⁰⁴ Eventually the states or the federal government may decide that they need a detailed code for certain payment devices, like stored-value cards. But creating new codes for all new devices would require massive commitments that seem unrealistic to expect.

Adopting specific codes for each new device, in addition, might prove wasteful. Technological developments may render some devices obsolete. For example, many people currently use the First Virtual system because it allows them to make purchases on the Internet without transmitting their credit card information. In the future, however, encryption technology may make sending credit card information safer. If that happens, the First Virtual system might cease to exist. A code governing the First Virtual system then would serve no purpose.

Codes also may have the deleterious effect of hampering innovation. For example, if states adopted a comprehensive law to govern Ecash, then DigiCash, Inc. might cease attempting to refine and improve the system. The company, understandably, might worry that alterations would create confusion. The code also might not allow changes.

For these reasons, although specific codes in theory could overcome the shortcomings of private contracts, Congress and state legislatures are unlikely to enact very many of them. Courts, as a result, cannot expect to settle disputes over new payment devices either by reference to private contracts or to specific statutes designed to govern the new devices. They will have to look elsewhere for legal rules.

C. A Comprehensive Code

If Congress and the state legislatures realistically cannot enact a series of new codes to govern all new payment devices, they conceivably still may have a legislative alternative. In particular, they could attempt to create a single comprehensive code with generic terms that would govern any new payment device. In other words, they could develop and enact one new statute that would apply to stored-value cards, Ecash, VirtualPINs, and anything else that inventors might devise.

¹⁰³ See James J. White & Robert S. Summers, Uniform Commercial Code § 1 (3d ed. 1988) (discussing the history of the drafting of the UCC).

¹⁰⁴ See id.

¹⁰⁵ See supra Part I.A.3.

A single comprehensive code might have several advantages over a collection of specific codes. Drafting and implementing a single code might cost less and take less time than drafting and implementing a specific code for each new payment device. A comprehensive code also should not become obsolete if some new payment devices ceased to exist. For instance, even if people stopped using VirtualPINs, the statute still could regulate stored-value cards and Ecash.

Any discussion of a comprehensive code, however, must take into account an important, but ill-fated project of the Permanent Editorial Board (PEB) of the UCC. In 1974, the PEB formed a committee to review articles 3, 4, and 8 of the Code. The committee consisted of Boston attorney Robert Haycock, Professor Hal Scott of Harvard, and Professor Peter Murray of Maine. After meeting with interested attorneys in 1978, the members of the "3-4-8 Committee" decided that, instead of revising existing articles of the UCC, they should develop an entirely new article to govern all payment devices. 107

The committee originally decided to call the new article the "New Uniform Payments Code," but later changed the name to the "Uniform New Payments Code" (UNPC). 108 By 1982, the committee had produced a series of discussion drafts written in the style of the other articles of the UCC. The UNPC contained ingenious generic provisions that strived to specify all of the rules for checks, credit cards, and funds transfers. 109

The drafters hoped that the UNPC would unify payment law, much as article 9 of the UCC earlier had unified the law of secured transactions. ¹¹⁰ Unification, they believed, could promote economic efficiency. If one code governed all devices, users would not decide which devices to use based on differences in legal rules. ¹¹¹ Instead, they would pick devices by comparing economic costs and benefits, like fees, speed, safety, and so forth. ¹¹²

¹⁰⁶ See WILLIAM D. HAWKLAND, ET AL., UNIFORM COMMERCIAL CODE SERIES § 4-101 (1982); Deborah S. Prutzman, Chips and the Proposed Uniform New Payments Code, 10 RUTGERS COMPUTER & TECH. L.J. 1, 1 (1983).

¹⁰⁷ See Hawkland, supra note 106, § 4-101; James V. Vergari, A Critical Look at the New Uniform Payments Code, 9 RUTGERS COMPUTER & TECH. L.J. 317, 317 (1983).

¹⁰⁸ See Permanent Editorial Board for the UCC, New Uniform Payments Code (Oct. 7, 1982) (Discussion Draft No. 8).

¹⁰⁹ See Edward Rubin, Efficiency, Equity and the Proposed Revision of Articles 3 and 4, 42 Ala. L. Rev. 551, 557 (1991).

¹¹⁰ See id.

¹¹¹ See Hal S. Scott, Corporate Wire Transfers and the Uniform New Payments Code, 83 COLUM. L. REV. 1664 (1983); HAWKLAND, supra note 106, § 4-101.

¹¹² See Hal S. Scott, Report to the "3-4-8" Committee of the PEB for the UCC 40 (Feb. 8, 1978) (available at PEB, 4025 Chestnut Street, Philadelphia, PA 19104) (stating that a

Unification of payment law, the drafters believed, could also make it easier for businesses and consumers to learn the rules governing different devices. 113 At present, as noted, a patchwork of different laws and contracts govern checks, wire transfers, and credit cards. The rules for each device differ from the rules for other devices. Many users, especially consumers, do not know the differences. They also sometimes do not know which rules govern a particular device. 114

The UNPC also had another potential advantage. The code would have provided, for the first time, a body of law to govern wholesale wire transfers. 115 At the time of its drafting, article 4A of the UCC did not exist. Although Congress had enacted a law governing consumer electronic fund transfers, wholesale wire transfers remained subject to private contracts and common law. 116

Despite these perceived advantages, and the skillful drafting of the committee, the UNPC project soon encountered political problems. The difficulties mostly concerned consumer protection issues. The New York Clearing House Association, a group that represented the interests of a group of large banks, feared that the UNPC would impose new consumer protection provisions on the checking system.¹¹⁷ Consumer groups, meanwhile, worried that the UNPC would reduce existing protection in connection with credit cards.¹¹⁸ Neither group seemed willing to bend.

Opponents of the UNPC also perceived a number of practical difficulties. Some people saw little benefit to unifying the law, doubting that legal rules played much of a role in the choice between different payment systems. Others objected to scrapping existing codes for checks and other payment devices because these codes had widespread support in their current forms. Others worried that a single code could not address the unique aspects of particular payment de-

comprehensive code could "eliminate artificial, legally imposed advantages of one payment system over another"); Vergari, *supra* note 107, at 318.

¹¹³ See HAWKLAND, supra note 106, § 4-101.

¹¹⁴ See Scott, supra note 112, at 97 (noting that the "difficulties in defining the boundaries of legislation offer a strong reason for a comprehensive payment code").

¹¹⁵ See Scott, supra note 111, at 1664-66, 1715.

¹¹⁶ See U.C.C. Prefatory Note art. 4A (1995).

¹¹⁷ See Rubin, supra note 109, at 557-58.

¹¹⁸ See id. at 558; Note, Overcoming the Obstacles to the Implementation of Point-of-Sale Electronic Transfer Systems: EFTA and the New Uniform Payments Code, 69 VA. L. Rev. 1351, 1361-64 (1983) (noting opposition to rule designed to change consumer liability).

¹¹⁹ See Anne Geary, One Size Doesn't Fit All—Is a Uniform Payments Code a Good Idea?, 9 RUTGERS COMPUTER & TECH. L.J. 337, 338 (1983); Prutzman, supra note 106, at 1-2. 120 See Vergari, supra note 107, at 325.

vices.¹²¹ Still others felt that drafting a comprehensive code to govern all payment devices would hinder the development of newer devices such as electronic funds transfers.¹²²

In 1984, for all of these reasons, the PEB decided to cancel the UNPC project.¹²³ Thinking that the opposition would preclude agreement on the statute, the PEB set its sights on a less radical goal. It decided simply to redraft portions of articles 3 and 4 and to develop a new article 4A that would govern wholesale funds transfers.¹²⁴

The demise of the Uniform New Payments Code project provides substantial reason to doubt that a comparable model statute will ever govern all new payment devices. A new code, admittedly, could avoid some of the difficulties that plagued the UNPC. For example, if the new code did not seek to govern established payment devices, like checks, credit cards, and wire transfers, it could avoid some of the political obstacles encountered by the UNPC. It also would not threaten the laws governing existing payment devices.

A uniform code designed to govern all new payment devices, however, might run into two of the same obstacles faced by the UNPC. First, the Code might blur some of the distinctions between the payment devices. First Virtual and DigiCash, for example, may need some slightly different rules for their Internet payment systems. Second, a single uniform code also might stifle the development or improvement of new devices. Many new payment devices, particularly those on the Internet, remain in their infancy. Experimentation certainly will cause the backers of these systems to change some of the rules governing their operation.

In addition to these practical problems, another factor makes the drafting of a new comprehensive code all the more unlikely. The failure of the UNPC meant that a number of very talented scholars had wasted years of effort. Memory of this frustrating experience might dissuade qualified people from devoting their time to another project along the same lines.

D. Common Law Rules

If contracts do not specify all of the rules, and legislatures seem unlikely to enact specific or generic codes, the law governing payment devices will have to come from another source. Courts simply will

¹²¹ See id.; Geary, supra note 119, at 339.

¹²² See Fred H. Miller, Report on the New Payments Code, 41 Bus. Law. 1007, 1008 (1986); Geary, supra note 119, 341.

¹²³ See Miller, supra note 122, at 1008.

¹²⁴ See Prutzman, supra note 106, at 30 (recommending this approach).

have to develop the law on a case by case basis as disputes arise. The common law rules they create will play a major role in governing payment devices.

History supports the common law approach. Courts devised and settled the rules governing negotiable instruments and letters of credit in the eighteenth and nineteenth centuries. ¹²⁵ In the twentieth century, prior to the enactment of statutes, they formulated a number of the rules governing credit cards and wire transfers in a case by case manner. ¹²⁶

Developing legal rules to govern new payment devices in a common law fashion has definite shortcomings. Because many payment transactions involve small sums of money, few cases warrant litigation. The process, therefore, takes a long time. In addition, conflicts may develop among different jurisdictions, complicating the use of payment devices across state lines.

Given the inevitability of some common law development, however, courts will have to deal with these difficulties. The following portions of this Article discuss how courts should formulate new common law rules. Although the recommendations will not solve all the problems, they attempt to make the best of an unavoidable situation.

III. Approaches to Formulating Common Law Rules

If courts will have to develop common law rules to govern new payment devices, the important question arises of how they should decide which rules to create. Courts traditionally have used two methods to formulate common law rules for commercial transactions. Some courts have attempted to adopt rules based on what the parties presumably would want—but might not state—when they enter into a payment transaction. Other courts have attempted to fashion rules for new payment devices by analogizing them to existing payment devices.

The following discussion considers but rejects as inadequate both of these traditional approaches. It recommends, instead, that courts attempt to create rules based on general principles of payment law, or the basic ideas underlying the rules that govern existing payment devices. Although the general principles approach has some drawbacks, it generally will work better than the presumed intent or the analogy approaches.

¹²⁵ See Grant Gilmore, Formalism and the Law of Negotiable Instruments, 13 CREIGHTON L. Rev. 441, 446-50 (1979) (discussing the history of negotiable instruments law). 126 See Edward L. Rubin & Robert Cooter, The Payment System: Cases, Materials, and Issues 715-17 (2d ed. 1994).

A. The Presumed Intent Approach

When no statute or contractual provision settles a dispute over a new payment device, a court might fashion a common law rule based on the presumed intentions of the parties. In other words, the court could attempt to decide what parties typically want when they enter into transactions of the kind at issue. It then could formulate rules that would effectuate their likely desires.

Courts used this method of decision in creating common law rules to decide early credit card cases. For example, in *Union Oil Co. v. Lull*, a court confronted a dispute regarding liability for unauthorized charges on a stolen card.¹²⁷ The contract between the card issuer and cardholder did not state the issuer's duties with respect to stolen credit cards.¹²⁸ In formulating a rule to cover the situation, the court saw its task as one of "striving to determine the meaning which the parties attached to their bargain."¹²⁹ After careful consideration of what the parties apparently wanted, the court found "an implied promise on the part of the [issuer] to exercise reasonable diligence" to protect the customer.¹³⁰ It then created a general rule requiring issuers to exercise that diligence.¹³¹ Applying the same method to a different issue, the court in *Socony Mobil Oil Co. v. Greif* refused to find an implied term requiring a cardholder to surrender all cards before closing his account.¹³²

Statutes now regulate certain aspects of credit cards. The presumed intent approach, however, continues to exist. Some courts still consider the parties' presumed intentions in credit card cases if no statute or contractual provision addresses an issue.¹⁸⁸

Courts may want to use the presumed intent approach to create rules to govern new payment devices. For instance, suppose a question arises about whether a party has the right to revoke a payment made with a stored-value card. A court could decide the issue by con-

^{127 349} P.2d 243 (Or. 1960).

¹²⁸ See id. at 248.

¹²⁹ Id. at 249.

¹³⁰ Id. at 250.

¹³¹ See id. at 254.

^{132 197} N.Y.S.2d 522, 523-24 (App. Div. 1960). For a very early similar example in which a court refused to find an implied term based on the parties' intentions, see *Lit Bros. v. Haines*, 121 A. 131, 132 (N.J. 1923) (finding no implied term to pay for unauthorized charges made on a credit "coin").

¹³³ See, e.g., FDIC ex rel. College Boulevard Nat'l Bank v. National Consumer Alliance, Inc., No. CIV.A.93-2269-EEO, 1994 WL 544119, at *5 (D. Kan. Sept. 28, 1994) (finding an implied promise to pay for charge backs based on the parties' presumed intentions).

sidering what rule the cardholder and the recipient of payment would have desired when they entered into the transaction. It then could incorporate that intention into a common law rule.

Although the presumed intent approach may function adequately in some cases, it has several very significant shortcomings. First, the approach does not work in cases where parties have had no dealings with each other before a dispute arises. For example, suppose a thief steals a stored-value card and sells it to a good faith purchaser for value. In attempting to settle a controversy between the original owner and the good faith purchaser, the court could not look to any implied agreement or understanding between the two parties because they never had the opportunity to form a contract.

Second, even when the parties may have formed an implied contract, courts often will have extreme difficulty determining what they would have wanted. Parties to contracts may fail to include terms because they have no specific intent one way or the other. For example, two parties to an Ecash transaction might not think about the possibility that an issuer of Ecash could become insolvent. If the parties never had any intention with respect to an issue, or a court cannot determine with any certainty what they intended, their intentions cannot serve as the basis for creating a new rule.

Third, the presumed intent approach rests on the idea that the parties to a payment transaction have the power to determine the governing rules. Yet, as noted above, parties to payment system transactions traditionally have not enjoyed complete freedom of contract. The legal system, in some instances, needs to impose immutable rules for efficiency, distributive, or paternalistic reasons. These goals at times may have to override the parties' presumed intentions.

For all of these reasons, commentators generally have recommended that courts should not attempt to fill gaps left by contracts and statutes solely by reference to the presumed intentions of the parties. The official commentary to the Restatement (Second) of Contracts, for example, states that "where there is in fact no agreement, the court should supply a term which comports with community standards of fairness and policy rather than analyze a hypothetical model of the bargaining process." The task in fashioning common law rules to govern new payment devices, as a result, lies in finding another approach that will produce fair and sensible results.

¹³⁴ See supra note 93 (identifying reasons that parties omit terms from their contracts).

¹³⁵ See supra Part II.A.

¹³⁶ RESTATEMENT (SECOND) OF CONTRACTS § 204 cmt. d (1981).

B. The Analogy Approach

Although some courts have determined the rules for new payment devices using the presumed intent approach, other courts have employed what might be called the analogy approach. In using the analogy approach, a court attempts to discern the existing payment device that most closely resembles the new payment device. The court then fashions common law rules to govern the new payment device by analogy.

For example, before adoption of article 4A of the UCC, some courts decided funds transfer cases with reference to the rules in articles 3 and 4.187 Although the courts recognized that these articles did not govern the transactions, they nonetheless looked to them for guidance and applied them by analogy. The Code, to some extent, supports this approach.138 Courts similarly have consulted article 5, which governs letters of credit, for rules that they could apply by analogy in credit card cases.139

Courts could employ the analogy approach to decide cases involving new payment devices such as stored-value cards, Ecash, and VirtualPINs. They could determine what existing devices these new devices most closely resemble—cashier's checks, credit cards, personal checks, or whatever—and then fashion new rules by analogy. In this way, the courts would have guidance in formulating the common law rules that they inevitably will have to construct. Like the presumed intent approach, the analogy approach sometimes will produce appropriate results.

¹³⁷ See, e.g., Bradford Trust Co. v. Texas Am. Bank, 790 F.2d 407, 409 (5th Cir. 1986) (looking to the rules in article 3 and 4 governing fraud loss); Evra Corp. v. Swiss Bank Corp., 673 F.2d 951, 955 (7th Cir. 1982) (discussing the rules in article 4 governing consequential damages, but assuming that they do not apply); Delbrueck & Co. v. Manufacturers Hanover Trust Co., 609 F.2d 1047, 1051 (2d Cir. 1979) (looking to rules in article 3 regarding the finality of checks).

¹³⁸ See U.C.C. § 3-104 cmt. 2 (1995) (noting that "it may be appropriate... for a court to apply one or more provisions of article 3... by analogy" if the court takes into account the necessary differences).

¹³⁹ See, e.g., Manufacturers & Traders Trust Co. v. Lindauer, 513 N.Y.S.2d 629, 632-33 (Sup. Ct. 1987); Preston State Bank v. Jordan, 692 S.W.2d 740, 742 (Tex. App. 1985). For commentators drawing this analogy, see Kate M. Landey, Consumer-Cardholder Defenses in Tripartite Credit Card Arrangements: A Battleground for the Beleaguered Bank, 88 Com. L.J. 84, 93 (1983); Eric E. Bergsten, Credit Cards—A Prelude to the Cashless Society, 8 B.C. Indus. & Com. L. Rev. 485, 502-03 (1967); John R. Martzell, Note, Credit—Credit Cards—Civil and Criminal Liability for Unauthorized or Fraudulent Use, 35 Notre Dame Law. 225, 226-28 (1959); L. Hayden Thompson, Jr., Comment, The Applicability of the Law of Letters of Credit to Modern Bank Card Systems, 18 U. Kan. L. Rev. 871 (1970); 20 Am. Jur. 2D Credit Cards and Charge Accounts § 8 (1996).

Courts, however, cannot rely on an analogy approach in all instances. Despite its widespread use, the approach has two very significant shortcomings. First, as a practical matter, courts often have difficulty deciding which payment device a new payment device most closely resembles. A new payment device may look like one established payment device in some respects, but may resemble another payment device in other respects. Attempts to pick the most closely analogous device may produce a great deal of disagreement.

The experience with credit cards illustrates this concern. Some courts and commentators, as noted above, have analogized credit cards to letters of credit. Many others, however, have rejected that analogy, pointing out significant difference between the two devices. ¹⁴⁰ Indeed, they have not seen credit cards as closely analogous to any other existing payment devices.

New payment devices may suffer from the same problem. Consider, for example, stored-value cards. In some ways, these cards resemble cashier's checks or money orders. Customers buy them from a bank, they have value, and customers can spend them. Customers, however, may view stored-value cards more like credit or debit cards because they will use them as substitutes for these devices. Indeed, a bank may issue one plastic card that the consumer could use as a credit, debit, or stored-value card.

A court attempting to decide a dispute involving a stored-value card might have difficulty deciding which type of established payment device the stored-value card most resembles. This difficulty, needless to say, matters a great deal. The rules governing cashier's checks differ substantially from the rules governing debit and credit cards.

Second, as a theoretical matter, the analogy approach cannot resolve all questions because all analogies eventually break down. Analogical reasoning rests on a presumption that, because two things are the same in some respects, they should be the same in other respects. But this presumption never holds true in all cases. Two different

¹⁴⁰ See Barkley Clark, The Law of Bank Deposits, Collections and Credit Cards § 11.02[5] (3d ed. 1990); John R. Fonseca, 1 Handling Consumer Credit Cases § 10:3, at 401-02 (3d ed. 1986); Mary E. Mathews, Credit Cards—Authorized Use and Unauthorized Use, 13 Ann. Rev. Banking L. 233, 242 (1994); Stephen L. Sepinuck, Classifying Credit Card Receivables Under the U.C.C.: Playing with Instruments?, 32 Ariz. L. Rev. 789, 813 n.138 (1990); Donald H. Maffly & Alex C. McDonald, Comment, The Tripartite Credit Card Transaction: A Legal Infant, 48 Cal. L. Rev. 459, 465-68 (1960); William B. Davenport, Bank Credit Cards and the UCC, 85 Banking L.J. 941, 968-69 (1968) (listing significant differences between letters of credit and credit cards).

¹⁴¹ See W. Ward Fearnside & William B. Holther, Fallacy: The Counterfeit of Argument 22-27 (1959) (discussing the limits of analogical reasoning).

things cannot resemble each other in all respects without being identical. 142 Courts applying analogical reasoning, unfortunately, have no sure way to know when an analogy no longer provides a useful basis for comparison.

For example, courts looking at bank credit cards may see that they resemble letters of credit in several ways. On this basis, they may assume that they should resemble each other in other ways. Perhaps they should. But that does not mean that they should resemble each other in all ways. Analogical reasoning does not guide courts in knowing where the stopping point should be.

These theoretical difficulties may lead to two negative consequences. At a minimum, the analogy approach tends to create confusion because no one can know where courts will cut off the analogy. Worse yet, in applying the approach, courts may extend the analogy so far that the results may not make sense as a matter of economics or other social policy. 144

C. The General Principles Approach

Because of the difficulties associated with the presumed intent and analogy approaches, the author recommends a different method for devising common law rules to govern new payment devices. Instead of looking to the parties' presumed intentions or to analogous payment devices, courts should rely on general principles of payment law. The general principles of payment law are the basic ideas and policies that underlie the rules governing existing payment devices.

1. Explanation of the General Principles Approach

The general principles approach, as the author envisions it, involves several steps. The court first must attempt to state the issue before it in general terms. For example, suppose a customer uses a stored-value card to pay a merchant. The customer then has a change of heart and wants to do something to undo the payment transaction.

¹⁴² Professors James J. White and Robert S. Summers once explained: "[A] letter of credit is a letter of credit. As Bishop Butler once said, 'Everything is what it is and not another thing.'" WHITE & SUMMERS, supra note 103, § 19-2, at 816.

¹⁴³ See U.C.C. Prefatory Note art. 4A (1995) (observing that article 4A is needed because courts are deciding funds transfers issues by reference to "principles of law applicable to other payment mechanisms that might be applied by analogy" and "[t]he result is a great deal of uncertainty").

¹⁴⁴ See Mathews, supra note 140, at 242 (explaining the negative consequences of applying letter of credit rules to credit cards).

Assume further that no statute or contractual provision addresses the issue.

The court might see the case as raising the issue of when the user of payment devices may cancel, revoke, or stop a payment made to a payee. After stating the issue in this fashion, the court then would consider how the rules governing existing payment devices would answer it. In particular, the court would consider whether or when a person could stop a payment made with cash, personal or cashier's checks, credit cards, wire transfers, letters of credit, and any other existing payment devices.

After surveying the existing payment devices, the court then would attempt to discern whether any generally-stated principles might explain the results. Part IV of this Article suggests several possible principles. Once the court discerns the appropriate general principles, the court applies them to resolve the dispute over the new payment device.

2. Arguments for the General Principles Approach

Before discussing further examples in depth, consideration of the arguments for the general principles approach would seem appropriate. Courts may find the general principles approach more complicated than the presumed intent or analogy approaches. Yet it has a number of advantages.

First, the general principles approach does not require courts to inquire about what the parties intended when they entered a payment transaction. It thus can handle the many cases described above in which the parties did not have any particular intent. It also will work in cases in which the parties' intent, for policy reasons, should not control.

Second, the general principles approach avoids the practical difficulties associated with the analogy approach. Courts using the general principles approach do not have to decide which existing payment device a new payment device most closely resembles. Instead, courts applying the approach look at all of the different established payment devices. Sometimes a new payment device will follow the rules applicable to one established payment device, and other times it will follow the rules applicable to another. For example, in some ways stored-value cards may act like checks; in other ways they may act like debit cards.

Third, the general principles approach avoids the theoretical difficulties associated with the analogy approach. Because courts are not

relying on analogies, they do not have to worry about the analogies breaking down. Instead, they look for general principles that make sense for all payment devices. Courts then apply those principles to produce results in specific cases.

Fourth, the general principles approach should produce rules that conform to the expectations and desires of most parties. Consumers and businesses presumably like the general principles underlying most existing payment devices. After all, they use the devices in billions of transactions each year. Extending these principles to new payment devices, as a result, should not produce unwelcome rules.

Fifth, the general principles approach allows courts to take advantage of the wisdom gained from hundreds of years of experience. The rules governing most payment devices have evolved to take into account numerous economic and practical considerations. Checks operate as they do because experience has proven that the rules governing their use make sense. By reducing the rules governing existing payment devices into general principles, courts may retain and carry on much of this learning.

Sixth, the general principles approach may help courts develop the law governing new payment devices more quickly. Once courts go through the trouble of discerning general principles in one case, they can apply those principles in other cases. For example, in answering a question about stored-value cards, the court may learn general principles applicable to Ecash and VirtualPINs.

Finally, the general principles approach will tend to fulfill the principal ambition of the failed UNPC. In particular, the approach will tend to reduce irrational legal differences between payment devices. The same general principles of law will apply to all new devices. As a result, economics—rather than strategic choices based on differences in law—will govern the choice of payment devices.

3. Potential Criticism of the General Principles Approach

Although the general principles approach has many arguments in its favor, the author also recognizes that it has several problems. These problems deserve attention because courts may confront them in deciding among the general principles approach, the analogy approach, and the presumed intent approach. The following concerns are perhaps the most significant.

First, courts may have difficulty ascertaining the general principles underlying the rules governing existing payment devices. Some rules have historical justifications that have lost much of their validity. The law governing checks, for example, presumes that banks can

check all drawers' signatures, even though automated check processing now makes that presumption implausible. Other rules may reflect political compromises. No general principle, for instance, can explain why Congress capped a consumer's liability for unauthorized credit card use at \$50, rather than \$40 or \$70.147

Second, in examining existing devices, courts may see conflicting principles. For example, a principle rooted in economic efficiency may explain the rules governing one payment device (such as a letter of credit), while paternalistic principles explain the rules for another device (such as a debit card). In this situation, the court cannot rely on general principles alone in determining what rule to apply to new payment devices. Instead, the court will have to choose among competing devices.

Finally, courts sometimes may disagree with the principles they discern in established payment devices and may not want to apply those principles. For example, suppose that a court discovers that all payment devices follow a particular rule about payee's right of recourse against the payor if something goes wrong. The court may decide that, no matter how universally shared, this principle contradicts an important social policy. The court, for this reason, might not want to extend the principle to a new payment device.

Although the general principles approach may suffer from all of these problems, courts should keep these difficulties in perspective. One way or another, courts will have to create new common law rules. The general principles approach often will produce favorable results.

Nothing mandates, however, that courts use the general principles approach in all cases. Courts should view the approach as a helpful tool that they may employ when they find it useful. If they find the analogy or presumed intent approaches more desirable in particular cases, they should use them. The existence of the general principles approach in no way limits what courts can do.

IV. Examples of the General Principles Approach

The following discussion illustrates how courts might rely on general principles of payment law in creating common law rules to govern

¹⁴⁶ Drawee banks generally pass back to collecting banks losses resulting from forged indorsements, but not forged drawers' signatures. See U.C.C. § 4-205(a) (1995) (establishing an implied warranty that collecting banks will violate when they present checks bearing forged indorsements but not forged signatures). For an explanation of the demise of the historical justification for these rules, see Perini Corp. v. First Nat'l Bank, 553 F.2d 398, 405-06 (5th Cir. 1977).

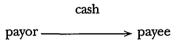
¹⁴⁷ See 15 U.S.C. § 1643(a)(1)(B) (1994).

new payment devices. After defining certain necessary terminology, it works through three typical issues that might arise under new payment devices.

A. Terminology

Payment transactions tend to fall into four general categories. For lack of better terms, the author will call them "direct cash payments," "indirect cash payments," "purchased cash substitute payments," and "created cash substitute payments." Familiarity with the distinctions between these different types of payment transactions will facilitate discussion of the general principles approach for creating new common law rules.

(1) Direct Cash Payment



The simplest form of payment involves only the payor and the payee. As illustrated in diagram (1), in a "Direct Cash Payment," the payor makes the payment by giving cash directly to the payee. For example, a consumer might pay for \$10.50 in groceries using a \$10 bill and two quarters.

Consumers and businesses use direct cash payments more often than any other form of payment. 148 Cash transactions, however, have a significant limitation. They require the payor to transact personally with the payee. This requirement presents problems when the payor and payee are not located in the same place.

(2) Indirect Cash Payment

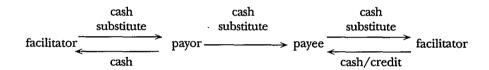
$$\begin{array}{ccc} & cash & cash/credit \\ payor & & \longrightarrow & facilitator & \longrightarrow & payee \end{array}$$

To overcome the problems associated with direct cash payments, a payor may opt for an "indirect cash payment." In this slightly more complicated type of transaction, the payor transmits cash to the payee by using a third-party to facilitate the transaction. As shown in diagram (2), the payor gives cash to the facilitator, who then gives cash or credit to the payee.

Wire transfers, made through banks or other commercial funds transfers systems, generally qualify as indirect cash payments. For example, a payor in New York might use Western Union to transfer money to a payee in San Francisco. The payor would deliver the cash to one of Western Union's offices in New York. Western Union then would notify the payee to pick up the same sum at an office located in San Francisco.¹⁴⁹

As an alternative to making a direct or indirect payment of cash, payors sometimes give payees a cash substitute. A cash substitute is something which is not cash, but which the payor can spend like cash, and which the payee later may convert to cash. The payor can acquire a cash substitute in two ways.

(3) Purchased Cash Substitute Payment



First, as shown by diagram (3), the payor can purchase the cash substitute from a third-party facilitator. To make the payment, the payor simply delivers the cash substitute to the payee. The payee (or an agent) then may redeem the cash substitute for cash or credit from the facilitator. Alternatively, the payee might use the cash substitute to make a payment to a third party.

Cashier's checks, money orders, traveler's checks, and letters of credit are traditional examples of purchased cash substitutes. Payors buy these instruments from banks or private companies and

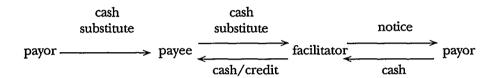
¹⁴⁹ Some indirect cash payments, like the one described above, involve only one facilitator. Others may include several facilitators. For example, many international funds transfers involve a series of intermediary banks who bring the payor and the payee together. See, e.g., Sheerbonnet v. American Express Bank, 905 F. Supp. 127, 129 (S.D.N.Y. 1995) (describing a funds transfer from Banque Scandinave to Northern Trust, to American Express Bank, to the Bank of Credit and Commerce in London). These additional facilitators, however, do not alter the basic structure of an indirect cash payment.

¹⁵⁰ See U.C.C. § 3-104(g) (1995) (defining cashier's checks); id. § 3-104(i) (defining traveler's checks); id. § 3-104 cmt. 4 (describing money orders); id. § 5-102(a) (10) (defining letters of credit).

then transfer or remit them to payees. Payees may redeem the instruments for cash or credit by presenting them to their issuers.

Some new payment devices fall into the category of purchased cash substitutes. Stored-value cards and Ecash coins, for example, serve as replacements for cash. The payor purchases these devices from an issuer and then delivers them to a payee. The payee obtains cash (or credit) by presenting codes from the cards or coins to the issuer.

(4) Created Cash Substitute Payment



Although payors sometimes buy cash substitutes, they also may create them. As shown in diagram (4), a payor may produce a cash substitute and then give it to the payee. The payee then may present the substitute to a facilitator in exchange for cash or credit. The facilitator, subsequently, requires the payor to reimburse it for the payment.

Ordinary checks serve as a created cash substitute. The payor draws the check and gives it to the payee. The payee then cashes the check at the payor's bank. The payor's bank returns the cashed check or otherwise gives notice to the payor. The payor then reimburses the bank, usually by allowing the bank to debit the payor's account.¹⁵¹

Credit card transactions also generally follow this model. To make a payment, the payor completes a credit card slip for a payee. The slip acts as a cash substitute. The payee presents the slip to the issuer of the credit card. The issuer pays for the slip and then obtains reimbursement by billing the payor.¹⁵²

Some new payment devices may fall into the category of created cash substitutes. In the First Virtual payment system, for example, the payor initiates the transaction by sending the payee an email message containing the payor's VirtualPIN. The payee then forwards the message to First Virtual as a means of obtaining cash. The email

¹⁵¹ See id. § 4-401(a) (stating when a bank may charge a customer's account for a check).

¹⁵² See Frazer, supra note 79, at 15-37 (describing credit card transactions).

message, accordingly, serves as a cash substitute. After paying the seller, First Virtual obtains reimbursement from the payor by charging the payor's credit card. 153

Identifying these four categories of transactions serves only to simplify the following discussion of general principles of payment law. The categories themselves have little formal significance. For example, checks sometimes follow different rules from credit card slips, even though they both serve as created cash substitutes.¹⁵⁴

B. Examples

Any number of questions may arise in connection with new payment devices. Various aspects of any transaction may go wrong and no statute or contractual provision may indicate what should happen. The following three examples serve to illustrate how courts might apply the general principles approach in producing rules to govern unsettled questions. Courts could apply the approach to other issues as well.

1. Stopping or Rescinding a Payment

As noted above, sometimes after the payor initiates a payment transaction, the payor will have a change of heart and will want to cancel it. 155 For example, the payor may give the payee a personal check, and then later order the drawee bank to stop payment. Courts in the future may have to determine when payors have the right to stop or rescind payments made with new payment devices.

Consider, for instance, a transaction using the First Virtual System. Suppose that a customer sends a merchant a VirtualPIN authorizing a transaction. The merchant forwards the VirtualPIN to First Virtual. First Virtual contacts the customer for confirmation of the transaction. The customer initially tells First Virtual to go ahead with the payment. Shortly afterwards, the customer contacts First Virtual and instructs it not to pay the merchant. May the customer stop payment at this point?

Assume that the First Virtual standard form contract does not answer this question and that no statutes or regulations govern the transaction. A court confronted with the issue would have to decide it as a

¹⁵³ See supra Part I.A.3.

¹⁵⁴ For example, absent negligence, a customer bears no liability for an unauthorized check, but may bear \$50 in liability for an unauthorized credit card charge. *Compare* U.C.C. § 4-401(a) (1995) (checks), *with* 15 U.S.C. § 1643(a)(1)(B) (1994) (credit cards).

¹⁵⁵ See supra Part III.C.1.

matter of common law. In formulating a rule to answer the question, the court may consider general principles of payment law.

To determine the general principles of payment law, the court first must discern the rules applicable to different existing payment devices. In so doing, the court would observe that direct cash payment transactions follow a simple rule. A payor cannot stop a direct cash payment because the transaction finishes as soon as it begins. The payor makes the payment upon handing the money to the payee. Nothing remains undone that the payor can stop.

A payor, however, can stop an indirect cash payment in certain instances. Under article 4A, for instance, the payor has a right to cancel a payment order before the receiving bank has executed it. ¹⁵⁶ After execution of the order, however, the payor generally has no right to stop the payment transaction. ¹⁵⁷

Payors generally cannot stop payments made with purchased cash substitutes. The purchaser of a cashier's check or teller's check, for example, cannot stop payment on the instrument after transferring it to the payee. A typical letter of credit, similarly, does not permit the applicant to stop payment. 159

The two principal created cash substitutes, checks and credit card slips, follow slightly different rules. The drawer of a personal check generally has the right to stop payment before the bank pays the instrument. The customer remains liable on the instrument to the merchant, but the bank cannot pay it. A customer who authorizes a credit card transaction, by contrast, does not have the right to stop the issuing bank from paying the merchant. 162

After making the foregoing observations, the court then would look for general principles that would explain all of the rules. One apparent principle is that the payor cannot stop payment once the payor already has paid. This principle explains why payors cannot stop direct cash payments. It also captures the limitations on stop payment orders in the context of wire transfers and checks. The princi-

¹⁵⁶ See U.C.C. § 4A-211(b) (1995).

¹⁵⁷ See id. § 4A-211(c).

¹⁵⁸ See id. § 4-403 cmt. 4.

¹⁵⁹ See id. § 5-108(a) (describing the issuer's duty to honor letters of credit). Although the issuer may create a revocable letter of credit, see id. § 5-106(b), most letters of credit are not revocable.

¹⁶⁰ See id. § 4-403(a).

¹⁶¹ See id. § 3-414 (describing the liability of a drawer); id. § 4-403 cmt. 7 (explaining how the drawer remains liable on the instrument after stopping payment).

¹⁶² The customer, however, under certain conditions may assert against the issuing bank any defenses that the customer has against the merchant. *See infra* Part IV.B.3.

ple further accounts for the conclusion that a person cannot stop payment on cashier's checks and teller's checks. The purchasers of these items pay for them at the time of issue. They thus already have paid for them when they transfer them in payment to others.

A second principle appears to cover transactions in which payment has not occurred already. In particular, the payor cannot stop payment when the payee is relying on the credit of a third-party (instead of the payor) in accepting the payment device. This second principle underlies the rules regarding credit cards, letters of credit, and checks. Merchants take letters of credit and credit cards because they know that a bank stands behind the payment. As a result, merchants trust these devices more than they trust personal checks. Permitting the customer to stop payment would undermine their security. By contrast, no one other than the payor stands behind the payor's personal checks, and the payee accordingly has a less certain expectation of payment.

After discerning general principles such as these, the court then should apply them. Returning to the hypothetical First Virtual transaction described above, the application seems straightforward. The first principle makes clear that the customer cannot stop payment if First Virtual already has paid the seller. A request to stop payment at that point would come too late.

With respect to a stop payment request made before First Virtual has paid the merchant, a court would have to consider the following question: Does a seller in taking a VirtualPIN rely on the customer's credit or on a third party's credit? Although parties certainly could debate the issue, the latter suggestion seems more likely.

A seller who has agreed to take payment from First Virtual knows that First Virtual will process the transactions only if the customer has a valid credit card with enough credit to pay for the transaction. The merchant relies on First Virtual and the credit card issuer to make sure that the payment comes through. The seller does not inquire about the customer's financial resources.

As a result, as a matter of common law, a court should conclude that a customer does not have a right to stop payment in a First Virtual transaction after confirming the payment. This conclusion accords with general principles of payment law that explain the rules for stopping payment with the most common established payment devices.

¹⁶³ This second principle, incidently, also provides an additional explanation for why payors cannot stop payment on cashier's checks, teller's checks, or stored-value cards. A merchant who accepts these devices in payment does not rely on the payor's credit. Instead, the merchant relies on the issuer's credit.

Consequently, it should not disrupt the payment system, it should accord with the general expectations of the parties, and it probably makes economic sense.

2. Payee's Right of Recourse Against the Payor

Sometimes when the payor initiates a payment transaction using a conventional payment device, something goes wrong and the payee does not receive the money. For example, a payor may write a check to the payee and the check might bounce. Or the payor may attempt to transfer funds to the payee, but the funds may not arrive.

The same problem could arise in transactions involving new payment devices. A merchant, for example, could take payment from a consumer in the form of Ecash or a stored-value card, and the issuer of the device could become insolvent and fail to pay. Similarly, the merchant could accept a VirtualPIN as payment, and First Virtual for some reason might fail to transfer funds to the merchant's account.

When the payee does not receive payment, the question arises whether the payee has a right of recourse against the payor—a right to recover from the payor the amount of the attempted payment. If no statute or contract specifies the answer to this question with respect to a new payment device, the court again will need to fashion a common law rule. General principles of payment law may guide the court in formulating the rule.

To determine the applicable general principles, the court first would examine all of the existing payment devices. Direct cash payments, again, require little analysis. The issue of failing to receive payment does not arise in direct cash payment transactions. If the payor gives cash directly to the payee, the payee receives payment and has nothing to complain about.

In transactions involving indirect cash payments, by contrast, the payment sometimes does not arrive. The payor, for example, may order a bank to transfer funds to the payee but the bank may fail to comply with the order. Article 4A states that the payee does not receive payment until the funds reach the payee or the bank in which the payee has an account.¹⁶⁴ Until then, the payee retains the right to receive payment from the payor.¹⁶⁵

¹⁶⁴ See U.C.C. § 4A-406(b) (1995) (specifying when a funds transfer discharges an underlying obligation). Note that attempting to send money to the payee by itself does not create an obligation in the payor. See id. § 4A-402 cmt. 3 (explaining that, except for an accepting bank, "no other person has any rights against the sender with respect to the sender's order").

¹⁶⁵ See id. § 4A-406(b).

In transactions involving created cash substitutes like checks and credit cards, the payee also has a claim against the payor if payment does not come through. For example, if the payee takes a check from the payor and the check bounces, the payee may recover from the payor either on the check or on the underlying claim. ¹⁶⁶ Similarly, if the payee accepts a credit card payment and the credit card issuer for whatever reason refuses to pay, the payee may claim the amount of the charge from the payor. ¹⁶⁷

Transactions using purchased cash substitutes involve slightly more complicated rules. A payee who takes a cashier's check from the payor generally has no right of recourse against the payor if the bank refuses to pay the check. The payee only has rights against the bank. By contrast, if a payee fails to receive payment under a letter of credit, the payee generally retains the right to collect from the payor. The payer of the payor.

In sum, the rights of payees vary depending on the devices used. On one hand, payees may recover from payors when personal checks bounce, when wire transfers do not go through, or when they do not receive payment under a letter of credit or credit card. On the other hand, they have no right to recover against the payor when the issuer of a cashier's check fails to pay.

A general principle emerges from these observations. In particular, if the payee fails to receive payment, the payee generally retains a right of recourse against the payor. The payee, however, does not

¹⁶⁶ See id. § 3-310(b)(3).

¹⁶⁷ This requirement generally comes from private contracts with the card issuer and the merchant accepting the card. Standard credit card slips usually refer to and incorporate these contracts with some version of the following legend: "I agree to pay the total above according to the card issuer agreement."

¹⁶⁸ See U.C.C. § 3-310(a) (1995) (stating that a cashier's check discharges the underlying obligation for which it is taken). The purchaser of the cashier's check can incur liability by endorsing the check. See id. § 3-415(a). Most purchasers of cashier's checks, however, do not choose to incur this liability. See Gregory E. Maggs, Determining the Rights and Liabilities of the Remitter of a Negotiable Instrument: A Theory Applied to Some Unsettled Questions, 36 B.C. L. Rev. 619, 660-61 (1995).

¹⁶⁹ See U.C.C. § 3-411(1995).

¹⁷⁰ A letter of credit, unlike cashier's checks and wire transfers, does not discharge the underlying obligation for which it is taken. Accordingly, if the payee does not receive payment, the payee may sue the payor for breach of the underlying obligation to pay. See WILLIAM D. HAWKLAND & TOM L. HOLLAND, UNIFORM COMMERCIAL CODE SERIES § 5-111 (1995); cf. U.C.C. § 3-310(a) (1995) (cashier's checks); id. § 4A-406(b) (wire transfers). Article 5 specifically permits the payor to recover from the issuer any damages incurred in the suit by that payee, provided that the issuer acted wrongly in refusing to pay. See id. § 5-111(b) (1995).

have a right to recover payment from the payor if the payor paid for the device prior to giving it to the payee.

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This principle underlies the rules governing all of the devices. Payors do not pay finally for checks, wire transfers, or letters of credit until payment reaches the payee.¹⁷¹ In contrast, payors generally have to pay for a cashier's check or a teller's check in advance. It would not make sense for payees to have a right of recourse against payors if the issuer of these devices does not pay. Payors generally would not use these devices if they could face further liability after already having paid for them.

Applying these principles to the new payment devices considered in Part I, the court might reach the following conclusions. If a payor attempts to pay for something using the First Virtual system, and First Virtual does not make the payment, the payor remains liable to the payee. The payor does not have a duty to pay First Virtual until First Virtual sends the money to the payee. A First Virtual transaction, in this respect, resembles a transaction involving a check or funds transfer.

On the other hand, if the payor uses a valid purchased cash substitute like Ecash or a stored-value card, and the issuer for some reason does not make payment, the payee should have no recourse against payor. The payor already has paid for these devices and most likely would not use them unless the payee agreed to rely on the issuer's creditworthiness. The payee, as a result, should only have rights against the issuer.

3. Responsibility for Claims Against the Payee

Sometimes a payor will discover that he or she has a claim against the payee after making a payment. A customer, for instance, may pay a merchant for goods and then not receive them. The customer then will have a claim against the merchant for breach of contract.

A question arises whether the customer may assert this claim against anyone other than the merchant. For example, suppose that a customer buys a stored-value card from a bank. The customer inserts the card into a vending machine to purchase some snack food. The machine reads the card, subtracts an amount for payment, but does not deliver the food.

¹⁷¹ See U.C.C. § 4-401(a) (1995) (bank may charge customer's account only if it pays a properly payable check); id. § 4A-402(d) (sender of payment order entitled to refund if transfer does not go through); id. § 5-108(i)(1) (issuer of letter of credit entitled to reimbursement by customer only upon payment to beneficiary).

The consumer clearly has a claim against the merchant that owns the machine. ¹⁷² But the consumer may not know how to find the merchant. Or the customer may live far away and find dealing with the merchant over such a small sum too much trouble. The customer, as a result, may want the bank that issued the card to refund the money paid to the merchant.

No statute presently governs this issue. As a result, unless the issuer addressed the matter in a contract with the consumer, a court would have to fashion a common law rule to decide the question. Once again, general principles of payment law may guide the court.

The court should look for the relevant general principles by considering the rules applicable to established payment devices. Direct cash payments once more follow a simple rule. A cash transaction does not involve any third parties. As a result, the payor cannot assert claims against anyone other than the payee.

In a funds transfer, the payor orders a bank to send the money to the payor.¹⁷³ If the bank accepts the order, the payor has a duty to pay the bank.¹⁷⁴ Nothing in article 4A excuses the payor from paying merely because the payor has a claim or defense against the payee. Regulation E, similarly, contains no provision excusing consumers from paying for their electronic funds transfers.

Purchased cash substitutes follow the same rule. A payor who buys a cashier's check or teller's check generally pays for the instrument in advance. After giving the check to the payee, the payor cannot stop payment. If the payor discovers a claim against the payee, the payor must sue the payee; nothing in articles 3 or 4 permits the payor to assert the claim against the bank. The same is true for personal checks. Although the payor may stop the bank from paying the check, the payor may not assert claims against the bank for authorized checks that the bank already has paid.

Letters of credit follow the same strict rule. The issuer of the letter of credit does not take responsibility for the performance of the underlying transaction between the parties. ¹⁷⁶ Once the bank pays the letter of credit, the payor must reimburse the bank. ¹⁷⁷ The payor who buys the letter of credit may not assert against the bank any claims that payor has against the payee.

¹⁷² See id. § 2-711 (describing the buyer's rights upon the seller's failure to deliver goods).

¹⁷³ See id. § 4A-104(c).

¹⁷⁴ See id. § 4A-402(c).

¹⁷⁵ See id. § 4-403 cmt. 4.

¹⁷⁶ See id. § 5-108(f)(1).

¹⁷⁷ See id. § 5-108(i)(1).

The same rule governs credit cards in non-consumer cases. The cardholder must pay the card issuer for any authorized charges, even if the cardholder has claims against the payee. In certain circumstances, however, a federal statute permits a consumer cardholder to assert against the issuer of the card "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." ¹⁷⁸

From these observations, a general principle emerges. After the payee receives the payment, the payor generally may assert claims arising out of the underlying transaction only against the payee. The payor may not assert claims against any bank or other facilitator. This principle extends to all established payment devices except for credit cards when used by consumers.

No generalizable principle explains the special rule for credit cards. It is simply an exception. The credit card rule, however, should be viewed in context. Two aspects of the credit card rule make its scope understandable.

First, the exception does not impose a great burden on credit card issuers. Under standard credit card agreements, if a dispute arises over a payment, the credit card issuer may charge back the amount of the payment to the merchant's bank.¹⁷⁹ Because banks know this rule, they generally refuse to grant credit card privileges to unscrupulous merchants.¹⁸⁰

By contrast, any merchant can take a check or letter of credit in payment. The merchant does not have to obtain approval from a bank and, consequently, may not operate in a trustworthy manner. Allowing credit card holders to assert claims against issuers, accordingly, imposes less of a burden than would a comparable rule allowing drawers of checks to assert claims against drawee banks if the payee in some way harms them.

Second, the credit card exception applies only to consumers. It thus reflects a general trend in the law not to make consumers pay for items purchased on credit when they have not received them. The FTC Holder in Due Course regulations and various provisions of the Uniform Consumer Credit Code also further the same goal.¹⁸¹

¹⁷⁸ See 15 U.S.C. § 1666(a) (1994).

¹⁷⁹ See generally Frazer, supra note 79, at 15-30.

¹⁸⁰ See id.

¹⁸¹ See Federal Holder-In-Due-Course Regulations, 16 C.F.R. §§ 433.1, 433.2 (1996) (insuring that consumers may assert claims and defenses from sales transactions against merchants and certain lenders); Uniform Consumer Credit Code §§ 3.307, 3.404, 3.405 (1974) (same).

This analysis makes possible the following recommendations. In formulating common law rules for new payment devices, a court should start with the presumption that payors may present claims arising from a payment transaction only against the payee. The court, however, might create an exception like the one that exists for credit cards. In deciding whether to create the exception, it should consider whether any factors—such as the two described above—would make the exception appropriate for the new payment device.

With respect to stored-value cards, the case for an exception seems fairly strong. Most stored-value card systems require issuers to approve the merchants that want to participate. The issuer of the cards, therefore, will worry less about what will happen if it has to pay a claim to a consumer. In addition, stored-value cards have primarily consumer uses. As noted above, they generally come in small denominations.¹⁸²

Allowing consumers to assert claims and defenses against issuers, however, does have a drawback. In particular, it may deter merchants from accepting stored-value cards. The merchant may worry that the issuer of the card will charge back the amount of the payment. If the merchant disputes the charge, the merchant then will have difficulty finding the consumer and settling the matter.

To address this problem, a court might want to adopt limitations on the exception like those that exist under federal law for credit cards. In particular, the exception only applies for purchases of \$50 or more that occur within the same state or within one hundred miles of the purchaser's residence. A court, however, would not need to follow these exact limitations; it could choose other comparable ones.

V. CONCLUSION

This Article has argued that courts will need to fashion common law rules to govern transactions involving new payment devices. It also has sought to demonstrate how courts should best exercise their discretion in formulating these rules. The general principles ap-

¹⁸² See supra Part I.A.1.

¹⁸³ The credit card exception states:

The customer has a right to assert claims or defenses only if (1) the obligor has made a good faith attempt to obtain satisfactory resolution of a disagreement or problem relative to the transaction from the person honoring the credit card; (2) the amount of the initial transaction exceeds \$50; and (3) the place where the initial transaction occurred was in the same State as the mailing address previously provided by the cardholder or was within 100 miles from such address

¹⁵ U.S.C. § 1666(a) (1994).

proach, if properly followed, should produce favorable results. Indeed, if it functions as predicted, the approach may avoid problems that courts have encountered using the presumed intent and analogy approaches.

The general principles approach, however, cannot supply all of the rules necessary to govern a payment system. Professors Richard E. Speidel, Robert S. Summers, and James J. White have developed a useful typology of six principal kinds of rules necessary to govern a payment system. ¹⁸⁴ They identify these rules as (1) rules of validation, (2) rules of interpretation and construction, (3) substantive suppletive rules, (4) rules of disclaimer, (5) policing rules, (6) third party protection rules, (7) priority rules, and (8) remedial suppletive rules and procedures. ¹⁸⁵

The general principles approach mostly focuses on substantive suppletive rules. These rules define the substantive private rights and duties that the parties should have in a transaction, even if they have not stated them by contract. ¹⁸⁶ Courts should find creating these rules similar to work that they always have done in developing the common law. They may have more difficulty with the other kinds of rules.

Consider, for example, policing and third-party protection rules. Through these rules, the government attempts to protect participants and society from possible harms that payment devices might cause. Courts usually have left these kinds of rules to Congress, the state legislatures, and administrative agencies.

The government, for example, regulates some payment devices to deter their use in money laundering. In particular, it imposes record-keeping requirements for certain transactions involving \$10,000 in cash and for certain purchases of cashier's checks for \$3,000 or more.¹⁸⁷ Several commentators have suggested that the government may need to regulate stored-value cards or Ecash to prevent their use in criminal activities.¹⁸⁸

¹⁸⁴ See Richard E. Speidel et al., Payment Systems: Teaching Materials 4 (5th ed. 1993).

¹⁸⁵ See id.

¹⁸⁶ See id.

¹⁸⁷ See 31 C.F.R. § 103.22 (1996) (imposing recordkeeping requirements on certain currency transactions); id. § 103.29 (imposing recordkeeping requirements for the sale of certain cashier's checks).

¹⁸⁸ See, e.g., Noel D. Humphreys, Cybercash, PA. LAW., May-June 1995, at 38 (discussing how stored-value cards permit stealth in payment); Ezra C. Levine, New Laundering Concerns: Safety in Cyberspace, Money Laundering 1 (Aug. 1995); Scott Sultzer, Money Laundering: The Scope of the Problem and Attempts to Combat It, 63 Tenn. L. Rev. 143, 197 (1995).

The government also currently insures some payment devices. For example, federal deposit insurance backs many cashier's checks sold in this country. This insurance promotes confidence in the checks. The government similarly may want to insure other payment devices and regulate their issuers. 190

The government also has imposed certain consumer protection requirements on payment devices. In particular, as noted several times, Congress has limited consumer liability for unauthorized use of credit and debit cards to a maximum of \$50 in most instances. ¹⁹¹ The government may see a similar need to impose limitations on liability in connection with new payment devices.

Courts may hesitate to impose these kinds of regulations on payment devices in a common law manner. The regulations involve many policy choices that courts may feel uncomfortable making. Their implementation also may require administrative action that the courts cannot mandate or supply.

Nothing in the general principles approach described above, however, prevents Congress, state legislatures, or administrative agencies from devising these kinds of regulations. The regulations could supplement any common law rules devised by courts. In other words, although common law rules will not serve as a panacea, they also will not stand in the way of other solutions.

Indeed, as noted in Part II above, state legislatures or Congress in the future may decide that the rules governing some new payment devices require comprehensive codification. For example, if the use of stored-value cards becomes sufficiently widespread, states might add an article 4B to the UCC to govern them. Nothing prevents this. Although courts at present must create common law rules, Congress and state legislatures may preempt or supplant court-made rules at any time with legislation.

¹⁸⁹ See 12 U.S.C. § 1813(l)(4) (1994) (defining "deposit" to include outstanding cashier's checks).

¹⁹⁰ See D. Lee Falls, Dateline 2005: Does Banking on the Internet Need to Be Regulated?, BANKING POL'Y REP., Dec. 18, 1995, at 1 (discussing a range of safety and soundness concerns with respect to new payment systems).

¹⁹¹ See 15 U.S.C. \S 1643(a)(1)(B) (1994); 12 C.F.R. \S 226.12(b)(1) (1995) (credit cards); id. \S 205.6(b) (1996) (debit cards).