

## BANKING ON THE NET: EXTENDING BANK REGULATION TO ELECTRONIC MONEY AND BEYOND

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Among the many challenges these emerging developments create, is determining the appropriate role for government in the new digital world of financial services.<sup>1</sup>

While the entire nation focused on the Olympic competition in Atlanta, Georgia, the financial industry was watching a pilot program, sponsored by Visa and three regional banks, First Union, Nations-Bank and Wachovia, to promote the use of Visa International's stored value card, called Visa Cash.<sup>2</sup> In this trial, disposable stored value cards were given to each of the Olympic athletes to purchase goods and services in the Olympic village.<sup>3</sup> In addition, the banks issued reloadable smart cards to customers and connected hundreds of merchants to a payment network.<sup>4</sup> Over the 14 day trial period, Visa Cash cards were used for more than 200,000 transactions totalling \$1.1 million.<sup>5</sup> Reports from December, 1996, indicate that consumers valued the convenience of the stored value card and therefore support the continued development of stored value cards by the nation's financial institutions.<sup>6</sup>

At this time, the nation's two largest banks are preparing to test consumer use and interoperability between two operating systems in a

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1. U.S. Dep't of Treasury, *An Introduction to Electronic Money Issues* (visited on Sept. 19, 1996) <<http://www.occ.treas.gov/emoney/papinf.html>>.

2. *Going for Olympic Gold Cards*, THE ECONOMIST, Mar. 30, 1996, at 67. The home page for Visa International is <http://www.visa.com>. *VISA Expo* (visited on Feb. 13, 1997) <<http://www.visa.com/cgi-bin/vee/main.html>>.

3. *Going for Olympic Gold Cards*, *supra* note 2, at 67.

4. *Id.*

5. *Visa Upbeat About Atlanta Market Test*, SMART CARD BULL., Sept. 1, 1996, at 1. The trial period was from opening day to closing ceremonies, July 14, 1996 through August 6, 1996. *Id.* With 1,500 merchant locations participating in the trial, including fast-food restaurants and gas stations, the average transaction amount was low.

6. A survey of 600 users indicated that 45% would use smart cards in the future and that most would make an initial purchase of a \$50 card rather than a \$30 card. Orla O'Sullivan, *Smart Cards Pose Tax Problems for Merchants*, A.B.A. BANKING J. 60, 60 (1996).

New York pilot.<sup>7</sup> Beginning in the fourth quarter of 1997, Chase Manhattan and Citibank will conduct a program in Manhattan's Upper West Side in New York City.<sup>8</sup> In contrast to the Olympic trial, only reloadable stored value cards will be issued.<sup>9</sup> Chase Manhattan will issue Mondex cards based on its association with MasterCard, and Citibank will issue Visa's stored value product, Visa Cash.<sup>10</sup> Each card will hold up to \$100.<sup>11</sup> Approximately 50,000 consumers and 500 merchants will participate in the pilot program.<sup>12</sup> All merchants will need a terminal to read the stored value on a card, but the organizers will be responsible for this cost.<sup>13</sup> Organized as the largest pilot program to date, the New York pilot will provide clear information about the potential uses of smart cards and other forms of electronic money.

Electronic money promises to revolutionize the payment system. Existing in various forms, electronic money technology takes advantage of the decreasing costs and capacity of microprocessors to provide a convenient payment alternative. This exciting technology has a wide array of potential applications, including smart cards, digital cash, smart TVs and electronic wallets.<sup>14</sup> Represented as the innovation that will take the world economy into the 21st century, the creation and use of electronic money will have significant implications for the banking industry.<sup>15</sup> Indeed, these new payment methods raise complex legal and public policy issues.

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7. *Chase Manhattan, Citibank, MasterCard and Visa Announce Changes To Manhattan Smart Card Pilot*, PR NEWSWIRE, Dec. 4, 1996; Valerie Block, *MasterCard Will Buy 51% of Smart Card Firm Mondex*, AM. BANKER, Nov. 19, 1996, at 1; James Gleick, *Dead as a Dollar*, N.Y. TIMES MAG., June 16, 1996, at 29.

8. *Chase, Citi to Pilot NY Purse*, CARDS INT'L, April 15, 1996, at 1.

9. *Id.*

10. Block, AM. BANKER, Nov. 19, 1996, at 1; *Chase, Citi to Pilot NY Purse*, CARDS INT'L at 1.

11. *Chase, Citi to Pilot NY Purse*, CARDS INT'L at 1.

12. *Id.*

13. *Id.*

14. One description of electronic money provides:

Electronic cash refers to stored value represented by a digital computer code that consumers use for payments processed through a computerized financial network. A consumer executes these payments using a stored value card in conjunction with a personal computer, an automated teller machine (ATM), a television cable connection, an enhanced telephone, or some other form of telecommunications equipment. When the consumer spends electronic cash with a merchant, the point of sale (POS) device "collects" the appropriate amount for the merchant, deducting electronic cash from the stored value card.

*OCC Banking Bulletin No. 96-48*, available at <<http://www.occ.treas.gov/FTP/bulletin/96-48.txt>>.

15. *Cf. Greenspan is Low-Key About E-Cash Impact on Payment System*, 15 No. 5 BANKING POLICY REP. 26, 26 (1996).

Some developers of electronic money market the technology as a mechanism to facilitate commerce on the Internet.<sup>16</sup> The potential users of electronic money include the 30 million worldwide users of the Internet, 35 million households in the United States with personal computers, and "over 98 million households if a more advanced type of telephone or interactive television technology takes hold in the United States."<sup>17</sup> Ideally, electronic money will replace the approximately \$400 billion of United States currency circulating worldwide.<sup>18</sup> Assuming its acceptance in the marketplace, electronic money will likely significantly reduce the need for cash in the \$2 trillion worth of individual transactions under \$10 in the United States each year.<sup>19</sup>

Citing the resistance to automated teller machines ("ATMs") during the 1980s, many remain skeptical about the anticipated growth in electronic money.<sup>20</sup> Most critics doubt that consumers will be willing to forego the "float" available when either a check or a credit card is used to purchase goods and services.<sup>21</sup> Most supporters of electronic money concede that consumer and merchant behavior must change, but argue that the psychological barriers to the use of electronic money will disappear over time.<sup>22</sup> Indeed, consumers and business entities may be forced to adopt the new payment technology as a result of decisions by government agencies. For example, the Federal Government no longer issues federal reserve notes in denominations

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16. The use of the Internet by consumers seems to multiply each day. Some estimate that there will be 200 million Internet users by the year 2000. The increase in the use of the Internet will also increase the amount of electronic commerce each year from \$245 million today, to over \$3 trillion by the year 2005. *Ludwig Warns Banks About Need for Debate on Electronic Issues*, 15 No. 5 BANKING POL'Y REP. 24 (1996). Electronic shopping malls, selling a variety of products, are already in existence.

17. Jeffrey Kutler, *Merchant Processing: Cards and Electronic Commerce: Infrastructure Ready, but the Waiting Has Just Begun*, AM. BANKER, Sept. 30, 1996, at 14.

18. Gleick, N.Y. TIMES MAG., June 16, 1996, at 28.

19. *Id.* at 29.

20. MARY L. KING, THE GREAT AMERICAN BANKING SNAFU 111 (1985). Many remain skeptical of the checkless society because it failed to develop as promised in the early 1970s when electronic funds transfers promised to create a paperless society. "Electronic payment did not quickly replace currency and paper checks as the major mean of payment for retail transactions. To this day, the United States remains heavily dependent on paper currency and checks for large number[s] of these payments." *Greenspan is Low-Key About E-Cash Impact on Payment System*, 15 No. 5 BANKING POL'Y REP. 26 (1996) (quoting a speech by Greenspan to the December 7, 1995 Conference on Payment System Research and Public Policy: Risk, Efficiency, and Innovation in Washington, D.C.).

21. Many consumers recognize that a period of time elapses between the purchase of a good and service and the deduction of the purchase price from their checking accounts. Technological advances in the payment system have reduced this time period significantly. See generally *Electronic Money No Threat to Payment Systems*, *Greenspan Says*, Banking Rep. (BNA) (Dec. 11, 1995).

22. Jeffrey Kutler, AM. BANKER, Sept. 30, 1996, at 14.

greater than \$100.<sup>23</sup> In addition, the Federal Government must reduce its check writing activities and switch to electronic payments for its estimated \$240 billion in payments annually.<sup>24</sup> The anticipated impact of these actions by the Federal Government requires an analysis of the impact of electronic money on a variety of legal and public policy matters.

With electronic commerce on the rise, the primary question for debate is whether and to what extent electronic money should be regulated.<sup>25</sup> The developers of the new electronic payment systems have repeatedly stated that the technology must be allowed to develop without any intervention by the Federal Government. In response, federal banking regulators initially suggested that they would take a "hands off" approach, hoping, in essence, to allow the market to go in any direction.<sup>26</sup>

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23. James Gleick, N.Y. TIMES MAG., June 16, 1996, at 42.

24. Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321-358 (to be codified in scattered sections of 31 U.S.C.). The Debt Collection Improvement Act of 1996 mandates that all federal government payments, except tax refunds, be made electronically by January 1, 1999. Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, § 3720C(x)(1), 110 Stat. 1321-376. The Office of Management and Budget and the Chief Financial Officers Council issued a five-year financial plan in 1996 that requires the United States government to modernize the payment methods by using electronic fund transfers and electronic commerce. John D. Hawke, Jr., *New EFT Law Represents Challenges, Opportunities*, AM. BANKER, Nov. 6, 1996, at 4 ("Think of it: In little more than two years, more than 340 million payments a year that used to be made by check, involving over \$240 billion dollars annually, will have to be made by electronic transfer."). See, e.g., Mickey Meece, *Visa, Banks Help U.S. Test Electronic Bill Payment*, AM. BANKER, Nov. 14, 1996, at 14.

25. The term "electronic commerce" refers to the use of technology to conduct wholesale or retail transactions in goods and services. In other words, to the extent consumers and commercial entities purchase goods or services over the Internet, the parties are engaging in electronic commerce. U.S. Dep't of Treasury, *An Introduction to Electronic Money Issues*, (visited Feb. 13, 1997) <<http://www.occ.treas.gov/emoney/papinf.html>> [hereinafter *Electronic Money Issues*]. In contrast, the term "electronic money" refers to the payment systems used for commerce, whether on-line, off-line or at the local grocery store. The focus of this paper is electronic money.

Typically, a digital signature or electronic signature is used to authenticate communications between parties to an electronic commerce transaction. A number of state legislatures are currently considering electronic signature legislation. See generally Henry H. Perritt, Jr., *Legal and Technological Infrastructures for Electronic Payment Systems*, 22 RUTGERS COMPUTER & TECH. L.J. 1 (1996); Richard A. Givens, *The Banking and Currency Power, Technology, and the Future of the Market Economy*, 12 COMPUTER & HIGH TECH. L.J. 381 (1996).

26. In his testimony before the House Banking Subcommittee on Domestic and International Monetary Policy, Federal Reserve Vice Chairman Alan S. Blinder testified: "I want to state clearly . . . that the Federal Reserve has not the slightest desire to inhibit the evolution of this emerging industry by regulation, nor to constrain its growth." Alan S. Blinder, *Statement by Alan S. Blinder Vice Chairman Board of Governors of the Federal Reserve System before the Subcommittee on Domestic and International Monetary Policy of the Committee on Banking and Financial Services U.S. House of Representative* (visited Feb. 13, 1997) <<http://www.house.gov/castle/banking/blinder.html>> [hereinafter Blinder]. Similarly, Comptroller of the Currency Eugene A.

However, the characteristics of electronic money make it a perfect candidate for regulation. Two of its significant characteristics, speed and privacy, could contribute to unprecedented losses when the products are introduced in the marketplace. In the history of banking regulation in the United States, Congress, in an effort to act quickly, has often enacted legislation which provided a short term solution, but failed to resolve the underlying problem.<sup>27</sup> Early consideration of the regulatory issues may lead to a more coherent and comprehensive scheme of regulation.<sup>28</sup> To evaluate these regulatory issues, federal and state banking regulators must consider whether activities with electronic money constitute the essence of banking. In addition, law enforcement agencies, which depend on the reporting of large deposits and withdrawals to investigate illegal activities, must learn about the development of the electronic money products. The public policy interests in monetary control, currency creation, consumer protection, law enforcement, money laundering, safe and sound financial institutions and payment system protection make electronic money a natural focus for regulation.<sup>29</sup>

This Article argues that steps must be taken at this time to ensure that consumers and merchants are protected as technological developments continue to emerge. To ensure the future development of electronic commerce, there must be consumer confidence in the pay-

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Ludwig, testified "[G]overnment must be ever mindful not to unnecessarily impede free market developments." Eugene A. Ludwig, *Testimony of Eugene A. Ludwig Comptroller of the Currency Before the Subcommittee on Domestic and International Monetary Policy of the Committee on Banking and Financial Services of the U.S. House of Representatives* (visited Feb. 20, 1997) <<http://www.house.gov/castle/banking/ludwig.html>> [hereinafter Ludwig].

27. "[L]essons from history indicate that a central authority is necessary to deal with disruption in the operation of the payment system that could result from banking panics." R. Alton Gilbert, *Financial Regulation in the Information Age* (visited on Feb. 13, 1997) <<http://www.cato.org/moneyconf/14mc-8.html>>.

28. Explaining his reasons for early review of these regulatory issues, Rep. Henry Gonzalez, Chair of the House Banking Committee, stated: "The appropriate time to deal with these issues is now, before major transformations occur and more sophisticated products are introduced into the marketplace." Celia Viggo Wexler, *Gonzales Pushing Consumer Safeguard for Electronic Banking*: 4, AM. BANKER, Oct. 24, 1996, at 2.

29. Federal banking regulators are not the only federal regulators being asked to control the activity on the Internet. Consumer advocacy groups and businesses are seeking federal control of everything from long-distance voice calls to pornography and advertising of tobacco. "Nearly every federal department is going to have a beef, because one of their laws or another is being violated. There will be increasing government intervention — the question is when[.]" Albert R. Karr, *On-Line: Critics Clamor for More Controls in Cyberspace*, WALL ST. J., Oct. 1, 1996, at B1. (quoting Scott Cleland, managing director of the Washington Research Group, an investors' analysis firm).

ment system.<sup>30</sup> Accordingly, consumer protection and the safety and soundness of the new form of payment must be key motivations for government regulation. Part I of this Article will outline some of the various types of stored value systems which are being used today. Parts II and III of this Article will demonstrate how current law is ill equipped to resolve the legal issues which will arise with the increased use of electronic money and outline the initial attempts by federal banking regulators to fill this void. Finally, Parts IV and V of this Article will offer reasons for an aggressive approach to the regulation of electronic money and outline specific recommendations for federal banking regulators.

## I. ELECTRONIC BANKING: WHAT IS IT?

For over a decade, banks have utilized wire transfers, National Automated Clearing House Association ("ACH") transactions and other types of technology to facilitate banking and commerce for corporate customers. In recent years, consumers have utilized automated teller machines and debit cards to facilitate retail transactions. These uses of technology, however, are only one part of the applications which constitute electronic banking. Electronic banking is a generic term used to describe a host of activities utilizing technological developments to bring banking to the fingertips of customers.

Some aspects of electronic banking are not significantly different from the traditional concepts of bank activities, and therefore, represent a new delivery system for traditional banking products. A dramatic example of a new delivery system for traditional banking activities is the "Internet bank," where customers may open accounts, transfer account balances and pay bills on-line.<sup>31</sup> Two national banks exist on the Internet. The first bank, Security First Network Bank, opened its Internet lobby on October 18, 1995.<sup>32</sup> First Security Network Bank obtained a national charter from the Office of the Comptroller of the Currency and deposit insurance from the Federal Deposit Insurance Corporation.<sup>33</sup> However, instead of driving to the

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30. D. Lee Falls, *Dateline 2005: Does Banking on the Internet Need to be Regulated?*, 14 No. 24 BANKING POL'Y REP. 1, 1 (1985).

31. Bill Burnham, *The Internet and Retail Banking: Hold On for the Ride*, 1 ELEC. BANKING L. & COM. REP. 16 (1996) (describing the different types of sites operated by commercial banks on the World Wide Web and indicating that most sites offer only "entry-level" information in "static" form about the bank and its products).

32. SFNB, *Media FNQ* (visited on Feb. 20, 1997) <<http://www.sfnb.com/newscenter/media/fag.html>>.

33. SFNB, *Newscenter Quick Facts* (visited on Feb. 20, 1997) <<http://www.sfnb.com/newscenter/facts.html>>.

bank, customers link to the bank lobby via the Internet and may conduct almost all transactions with the bank on-line.<sup>34</sup>

Initially a subsidiary of Cardinal Bancshares, Inc., Security First Network Bank recently broke its ties with Cardinal Bancshares and moved its physical operations to Atlanta, Georgia.<sup>35</sup> Customers conduct all business with the bank on-line or on the telephone. Currently, the bank offers all types of deposit accounts services, including checking and savings accounts, money market funds, certificates of deposit and an ATM/debit card.<sup>36</sup> The bank recently added a credit card to its list of products and is seeking regulatory approval to offer insurance and brokerage services on-line.<sup>37</sup> A recent report indicates that the bank has attracted over 8,000 customers and amassed \$41 million in assets.<sup>38</sup>

A second Internet bank, Atlanta Internet Bank, opened its virtual doors in October 1996.<sup>39</sup> Similar to Security First Network Bank, Atlanta Internet's skeleton staff hopes to offer banking services for a fraction of the costs.<sup>40</sup> The Atlanta Internet Bank is currently a part of Carolina First Corp. in Greenville, South Carolina, a bank with \$1.5 billion in assets, but organizers plan to make the Atlanta Internet Bank a "stand-alone institution" before the end of 1997.<sup>41</sup> Initially, the bank offered only deposit products, including money market accounts, interest-bearing checking accounts, direct deposit, electronic bill payment services, and ATM cards.<sup>42</sup> Atlanta Internet plans to offer loan products and brokerage services before the end of 1997.<sup>43</sup> Both Security First Network Bank and Atlanta Internet Bank are tak-

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34. *SFNB, Media FAQ*, *supra* note 32. Security First Network Bank is located on the World Wide Web at <http://www.sfnb.com>. *Security First Network Bank* (visited on Feb. 13, 1997) <<http://www.sfnb.com>>.

35. Jennifer Kingson Bloom, *A Virtual Bank Grapples with Reality*, *AM. BANKER*, Aug. 19, 1996, at 10A.

36. Mickey Meece, *Internet Bank's Offering of a Credit Card Proves a Hit with its Customers*, *AM. BANKER*, Dec. 16, 1996, at 18.

37. *Id.*

38. *Id.*

39. Jennifer Kingson Bloom, *A Second Bank is Launched into Cyberspace*, *AM. BANKER*, Oct. 18, 1996, at 1. The bank's web site is [www.atlantabank.com](http://www.atlantabank.com). *Bank: Atlanta Internet Bank* (visited on Feb. 13, 1997) <<http://www.atlantabank.com>>. Initially accessible only through AT&T's Worldnet, the bank's site opened to all users on the World Wide Web in December 1996, but will receive free advertising on Worldnet's home page until the bank receives two million "hits." Bloom, *AM. BANKER*, Oct. 18, 1996, at 1.

40. Bloom, *AM. BANKER*, Oct. 18, 1996, at 1.

41. *Id.*

42. *Id.*

43. *Id.* One of the many questions raised for banks existing solely on the Internet relates to the obligation of the bank under the Community Reinvestment Act. Jennifer Kingson Bloom, *What's CRA Duty of an On-Line Bank, Regulators Ponder 'Reinvesting' in a Cyberspace 'Community'*, *AM. BANKER*, Jan. 7, 1997, at 18.

ing advantage of technologies arising due to the decreased costs of communication.

Unlike the two Internet banks, most banks are not yet willing to close the doors to their "brick and mortar" locations, but are offering electronic banking and commerce to customers in a more limited fashion. Most major banks offering electronic banking services to their customers allow access to account information, permit fund transfers, and offer bill payment services.<sup>44</sup> One new feature is the ability to submit an application for a bank loan on-line.<sup>45</sup> Due to the substantial capital investment required to develop the technology for this type of service, banks are developing electronic banking services using a variety of methods. Perhaps the best example of the opportunities generated by the new technology are the plans by a small Pennsylvania bank to offer new computer services. The Office of the Comptroller of Currency ("OCC") recently approved a request by Apollo Trust Company ("Apollo"), a small bank in Apollo, Pennsylvania with \$105 million in assets, to provide home banking services to its customers and to sell Internet access to the public.<sup>46</sup> Specifically, the OCC granted the request to sell general Internet access to any individual or

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44. See generally Carey Gillam, *250,000 Customers Crowd NationsBank's PC Banking System*, AM. BANKER, Jan. 15, 1997, at 5 (explaining that NationsBank, Citicorp and Wells Fargo & Co. offer significant PC based services to customers); Jennifer Kingson Bloom, *For Chase, Size Is a Virtue, 'Customer-centricity' an Ideal*, AM BANKER, Dec. 23, 1996, at 8A (discussing banking by personal computer). One industry study suggests that approximately 500 banks maintain sites on the Internet. See Thomas P. Vartanian, *Many Evolutionary Factors Point Out One Way: The Internet*, AM. BANKER, Dec. 23, 1996, at 4A. See also Booz-Allen & Hamilton, *Internet Banking Poised for Rapid Growth*, Booz-Allen & Hamilton (visited on Nov. 26, 1996) <<http://www.bah.com/press/banking.html>>.

45. Three major banks have established programs for customers to apply and receive automobile loans on-line. Whether access is provided from a personal computer in the dealer's showroom or from home, customers may apply for a loan and receive a determination in a short period of time. NationsBank has a pilot program which allows a customer to apply for an automobile loan on-line by accessing its ADP Auto Connect site which contains information about various automobiles and financing options. Wendy S. Mead, *NationsBank Plans On-Line Automobile Loans*, AM. BANKER, Oct. 16, 1996, at 12. Customers may connect to the site from home or from a computer in one of 12 automobile dealerships participating in the program. *Id.* Customers must enter information about the automobile they wish to purchase and other credit information and the applications are sent to NationsBank for processing via e-mail. *Id.* Within minutes the customer learns that the application has been accepted for review or notified that additional information is necessary. *Id.* See Bloom, AM. BANKER, Dec. 23, 1996, at 8A (describing network of kiosks established by Citibank for individuals to apply and receive a loan); Wendy S. Mead, *Chase to Finance Cars Bought Through Web Site*, AM. BANKER, Nov. 22, 1996, at 13 (describing Chase's Internet automobile loan service).

46. OCC Interpretative Letter No. 741, [Current Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 81-105, at 90,213 (Aug. 19, 1996); Olaf de Senerpont Domis, *OCC Allows Internet Access Plan, Eyeing Competitive Edge for Banks*, AM. BANKER, Sept. 5, 1996, at 1.

organization in the bank's service area of Western Pennsylvania.<sup>47</sup> The OCC authorized free Internet access to schools, government offices, libraries, churches and non-profit organizations.<sup>48</sup> At the time of the request, Apollo had a home page on the World Wide Web which allowed its customers to transfer funds, apply for loans and view account balances.<sup>49</sup>

In contrast to Apollo Trust Company's Internet services, some banks allow their customers to use third-party software, such as Quicken, developed by Intuit, Inc., and Money, developed by Microsoft, for home banking services.<sup>50</sup> Other banks, such as First Union Corporation, have made arrangements for their own bill payment services.<sup>51</sup> Recently, a group of fifteen major banks announced the formation of Integriion Financial Network ("Integriion") as a joint venture with International Business Machines Corporation ("IBM").<sup>52</sup> The banks formed the joint venture, Integriion, to develop a "cooperative processing infrastructure for home banking."<sup>53</sup> The banks participating in Integriion have more than half of the customer accounts in North America.<sup>54</sup> However, the new network is intended to allow banks of all sizes to offer home banking products to their customers

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47. Olaf de Senerpont Domis, *AM. BANKER*, Sept. 5, 1996, at 1.

48. *Id.*

49. *Id.*

50. *On-Line Banking: Microsoft System to Include First Virtual's Internet Tool*, *AM. BANKER*, Jan 23, 1997, at 16. First Virtual Holdings, Inc., one of the companies offering a payment mechanism for Internet transactions, recently announced that its Internet Payment System software would be bundled into Microsoft Merchant Server software. *Id.* First Virtual's system allows the customer to use the Internet to identify documents, goods or services, but removes all payment processes from the Internet. DANIEL C. LYNCH & LESLIE LUNDQUIST, *DIGITAL MONEY: THE NEW ERA OF INTERNET COMMERCE* 33 (1996) [hereinafter LYNCH & LUNDQUIST]. First Virtual simply uses electronic mail to verify purchases and uses its software to process credit card transactions off-line or debit transactions through ACH. *Id.* at 31-33. First Virtual's home page on the world wide web is located at <http://www.fv.com>. *First Virtual Holdings Incorporated* (visited Feb. 13, 1997) <<http://www.fv.com>>.

51. Matt Barthel, *First Union Gear Up to Offer Electronic Bill Payment*, *AM. BANKER*, Sept. 11, 1996, at 15.

52. IBM, *IBM Lead Story: 15 North American Banks and IBM Form Company to Offer Electronic Banking & Commerce Services* (visited on Feb. 13, 1997) <<http://www.ibm.com/news/bankingpr.html>>. On December 2, 1996, the Federal Reserve Board decision authorized three institutions, including Norwest Corp., Royal Bank of Canada and ABN AMRO North America, to invest in Integriion. Olaf de Senerpont Domis, *Capital Briefs: Go-Ahead for Banks to Join IBM-Led Network*, *AM. BANKER*, Dec. 10, 1996, at 4. On December 4, 1996, the OCC granted the necessary regulatory approval to twelve banks, including BankAmerican Corp, NationsBank Corp, and First Chicago NBD Corp. to join the joint venture. *Id.*

53. Drew Clark, *'Dinosaur' Roar Back with Home Banking Pact*, *AM. BANKER*, Sept. 12, 1996, at 1.

54. IBM, *IBM Lead Story: 15 North American Banks and IBM Form Company to Offer Electronic Banking & Commerce Services* (visited on Feb. 13, 1997) <<http://www.ibm.com/news/bankingpr.html>>.

and allow customers to make bill payments through the Internet or IBM's private network, the IBM Global Network.<sup>55</sup> Specifically, Integriion will establish a "gateway" through which bank customers may use a home personal computer, telephone, or interactive television to access the services and products offered by their bank.<sup>56</sup>

Nonbank entities are also serving as electronic providers of traditional banking services.<sup>57</sup> The on-line bill paying services offered by organizations such as Checkfree provide the customer with computer software to order payments to various creditors.<sup>58</sup> Typically, the services use the system operated by ACH to make the payments requested by a customer electronically.<sup>59</sup> However, when the ACH system is unavailable, the bill paying service generates a paper check and mails the check to the vendor.<sup>60</sup>

Bill paying services present unique issues, including liability of a payment processor arising from the failure to pay, delayed payment to a particular vendor, or payment to the wrong vendor. Current payment laws governing settlement should provide a basis for resolving many of these issues. In contrast, new forms of electronic money create the regulatory and legal challenges which differ significantly from electronic payments through electronic bill paying services.

#### A. STORED VALUE CARDS AND SMART CARDS

A smart card, a type of "stored value card," is a wallet-size card, similar in appearance to a credit card, with a magnetic strip or microprocessor embedded in the card.<sup>61</sup> Value is loaded on the card by the issuer based on the amount of cash tendered by the customer.

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55. Integriion's "chief goals are to permit banks to take a greater role in the development of the emerging 'online' payment system and to share a common platform for electronic banking that will allow banks to protect their brand value and retain market share in the face of increased competition from nonbanks." Thomas Vartanian et. al., *Integriion Financial Network: A New Stage for Electronic Banking*, 1 ELECTRONIC BANKING L. & COMM. REP. 6 (Oct. 1996).

56. Olaf de Senerpont Domis, *Go-Ahead for Banks to Join IBM-Led Network*, AM. BANKER, Dec. 10, 1996, at 4.

57. These nonbank entities present significant challenges for commercial banks. For example, Integriion was created out of a fear that customers would look to Microsoft and Intuit, developers of Quicken and Money, for banking services instead of commercial banks. Clark, AM. BANKER, Sept. 12, 1996, at 1. "The growing power of these technology firms had many banks fearing the loss of control of the home banking market." *Id.*

58. LYNCH & LUNDQUIST, *supra* note 50, at 24-25.

59. *Id.* at 25. All ACH transactions require the person seeking to debit a customer's account to receive written authorization from the consumer before the ACH debit transaction is initiated. *Id.*

60. LYNCH & LUNDQUIST, *supra* note 50, at 35. In contrast, the Netscape Payment System uses a combination of ACH and credit card transactions to pay for goods and services at the request of customers. *Id.*

61. LYNCH & LUNDQUIST, *supra* note 50, at 115-16.

The card may be used to purchase goods or services. Value is removed from the card by the merchant providing the goods or services.

In many ways, stored value cards do not represent new technology. For a number of years, stored value cards with magnetic strips have been created for use with a single vendor. The prepaid card used for mass transit and the campus copying machine are examples of the stored value card. With the new technology, stored value cards may be created for use with an unlimited number of merchants and/or for a multiple number of purposes.<sup>62</sup> The new technology allows most stored value card systems to operate off-line because all of the information needed to identify the card and determine the remaining value exists on the card.<sup>63</sup>

Smart cards are being developed for a number of different uses. In addition to the electronic money function, airlines, universities, hospitals and the government are using stored value cards for electronic ticketing, the delivery of electronic welfare benefits and storage of vital personal information.<sup>64</sup> For the developers of smart card sys-

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62. The difference between the single-vendor stored value card and the multi-vendor stored value card is typically referred to as the difference between a "closed system" and an "open system." John Wenniger & David Laster, *The Electronic Purse*, 1 FED. RESERVE BANK OF N.Y. CURRENT ISSUES IN ECON. & FIN. 1 (April 1995).

63. Gleick, N.Y. TIMES MAG., June 16, 1996, at 29. The thin microchip embedded in the plastic has 2-4 kilobytes of memory and stores approximately 80 times the information that can be stored on a magnetic strip. *Id.*

64. See, e.g., Valerie Block, *American Express Testing Its First Smart Card with American Airlines*, AM. BANKER, Oct. 17, 1996, at 17. Piggybacking on American Airlines new ticketless travel program, AAccess, American Express is participating in a pilot program where American Express issues corporate cards to American Express and IBM employees which may be used to purchase tickets on American Airlines. *Id.* In this program, employees insert the card into a reader at an American Airlines departure gate and receive a boarding pass. *Id.* The chip on the card stores identification information about the employee, including frequent flyer information and is matched with American Airlines ticketing database. *Id.* The smart cards are also equipped with a magnetic strip, so the employee can use the card wherever American Express is accepted. American Express, a late entrant in the smart card industry, hopes to enlarge the uses of the card to include the purchase of airline tickets, to expedite car rentals and hotel check-in and to electronically insert travel information into a corporate expense account. *Id.* One of the most popular uses for stored value cards is on college campuses. Washington University in St. Louis, Missouri has a program whereby students may place value on their identification cards. The university places value on the card and invests the money received for the issuance of the card. *Id.*; Scott D. Smith, *Fed Exec: Regulation Unlikely for Nonbank Payment Firms*, AM. BANKER, May 28, 1996, at 2. The cards may be used for purchases from the university bookstore, campus cafeterias or participating off-campus merchants. Smith, AM. BANKER, May 28, 1996, at 2.

Similar stored value programs have been implemented at the University of Michigan, Western Michigan University and Florida State University. *EBIT Looks to the Universities for the First Smart Card Lessons*, DEBIT CARD NEWS, May 16, 1996. The Florida State University program gives smart cards holders access to the internet and student records and may be used to purchase telephone services, football tickets or make ATM transactions. *Florida State Graduates Chip Cards to a Higher Operating Level*, DEBIT CARD NEWS, March 15, 1996.

tems, the current challenge is to create an open system that can expand and accept upgrades without having to reissue cards and purchase new terminals. For example, the pilot program scheduled for late 1997 in Manhattan's Upper West Side will combine stored value cards with debit and credit cards.<sup>65</sup> This test will give developers the first opportunity to understand the benefits of an integrated system.

Mondex International ("Mondex"), a leading developer in the smart card industry, has created a smart card which can be used at a variety of retail establishments.<sup>66</sup> Mondex was spun out of Natwest Group of London on July 18, 1996.<sup>67</sup> The result was a jointly owned venture by seventeen major banks from all over the world, including Wells Fargo & Co., Royal Bank of Canada and Hongkong & Shanghai Banking Corp.<sup>68</sup> The Mondex system utilizes a small handheld reader to determine the value of the smart card.<sup>69</sup> The Mondex card can be used for face-to-face transactions between individuals or between merchants and consumers.<sup>70</sup> Mondex expects that the technology will soon expand to equip individual PCs with readers that will facilitate transactions via the Internet.<sup>71</sup> The company also envisions the ability to reload the card via telephone.<sup>72</sup> The Mondex smart card also keeps records on the use of the card.<sup>73</sup>

The Mondex system was initially tested in Swindon, England with a pilot program which began in the summer of 1995.<sup>74</sup> During the first year of the pilot program in Swindon, 10,000 of the 190,000

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The banking community has begun to explore stored value programs. Recently, the Huntington National Bank in Columbus, Ohio, received OCC approval to establish a joint venture with the Student Loan Marketing Association and Battelle Memorial Institute to develop, market and maintain a stored value system. Olaf de Senerpont Domis, *AM. BANKER*, Sept. 5, 1996, at 1. See also *infra* notes 266-68 and accompanying text. The joint venture, to be named Cybermark, will create stored value systems for a variety of "closed" systems, such as universities, hospitals, theme parks and military bases. *Id.* See, e.g. Valerie Block, *Campus Smart Card Venture Headed by Industry Outsider*, *AM. BANKER*, Dec. 31, 1996, at 10.

65. *Chase, Citi to Pilot NY Purse*, *CARDS INT'L*, April 15, 1996, at 1.

66. Gleick, *N.Y. TIMES MAG.*, June 16, 1996, at 30. The web site for Mondex may be found at <http://www.mondex.com/index.html>. Mondex International (visited Feb. 13, 1997) <<http://www.mondex.com/index.html>>.

67. Jeffrey Kutler, *Mondex, Moving Fast, Sees Long Trek to a Worldwide Cash Alternative*, *AM. BANKER*, Sept. 16, 1996, at 10A.

68. Valerie Block, *Rumors of MasterCard's Plans to Buy Mondex Nearing Reality Series: 1*, *AM. BANKER*, Sept. 17, 1996, at 1; Valerie Block, *Cybercash, Mondex Team Up to Put Smart Card on the Web*, *AM. BANKER*, Sept. 27, 1996, at 12.

69. Thomas P. Vartanian, *Mondex's Swidon Test Points to Future of Electronic Cash*, *AM. BANKER*, Apr. 15, 1996, at 14A.

70. *Id.*

71. Block, *AM. BANKER*, Sept. 27, 1996, at 12.

72. Vartanian, *AM. BANKER*, Apr. 15, 1996, at 14A.

73. *Id.*

74. Gleick, *N.Y. TIMES MAG.*, June 16, 1996, at 30.

people in Swindon signed up to use a card.<sup>75</sup> While the number of cardholders seems small, almost all the merchants — double the number of merchants accepting Mastercard and Visa — accepted the Mondex card.<sup>76</sup> Mondex surveys showed that 66% of the cardholders in the pilot program preferred the Mondex card to cash.<sup>77</sup> While Mondex officials speculate that the use of the card would increase with an offer of rebates, during the first year of the program, customers placed an average of \$35 to \$45 on the cards and used the card primarily for transactions under \$7.50.<sup>78</sup>

MasterCard, which was developing its own stored value program, acquired a controlling interest in Mondex in late 1996 and thus adopted the Mondex technology for its smart cards.<sup>79</sup> Shortly after MasterCard's acquisition, in December 1996, OCC issued a letter ruling authorizing four national banks to establish operating subsidiaries for the sole purpose of acquiring membership interest in the limited liability companies which will operate the Mondex stored value card system in the United States.<sup>80</sup> Specifically, Wells Fargo Bank, N.A., Michigan National Bank, First National Bank of Chicago and Texas Commerce Bank were authorized to invest in the Mondex system.<sup>81</sup> In addition to the pilot program in Manhattan's Upper West Side, Mondex pilot programs have been planned for San Francisco, California; Guelph, Ontario and Hong Kong.<sup>82</sup>

## B. ELECTRONIC MONEY

Electronic money is a term used to refer to a variety of mechanisms which will facilitate payments on the Internet or other computer based communications.<sup>83</sup> In some instances, electronic money uses the smart card technology to transfer funds over the Internet. In other instances, electronic money is used to describe a system where

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75. Jeffrey Kutler, *Mondex, Moving Fast, Sees Long Trek To a Worldwide Cash Alternative*, AM. BANKER, Sept. 16, 1996, at 10A.

76. *Id.* One merchant summed up the reasons for the appeal of the Mondex card to merchants: "I don't give money away to a bank like I do with a MasterCard or Visa discount. . . . There is no problem with fraud or counterfeit [credit cards]." *Id.*

77. Kutler, AM. BANKER, Sept. 16, 1996, at 10A.

78. *Id.*

79. *Mondex Deal Changes MasterCard Strategy*, FIN. SERVICES REP., Dec. 4, 1996, available in 1996 WL 7003748 \*1.

80. *Notices of Wells Fargo Bank, N.A., Michigan National Bank, First National Bank of Chicago, and Texas Commerce Bank of Intent to Establish an Operating Subsidiary Pursuant to 12 C.F.R. 5.34 to Become a Member of Limited Liability Companies Operating a Stored Value System*, available at 1996 WL 742601 (O.C.C.) (Dec. 2, 1996).

81. *Id.*

82. Kutler, AM. BANKER, Sept. 16, 1996, at 10A; Block, AM. BANKER, Sept. 27, 1996, at 12.

83. See generally Gleick, N.Y. TIMES MAG., June 16, 1996, at 27-50.

value is placed on the hard drive of a personal computer and value is transmitted between computers.

CyberCash, Inc., a company located in Reston, Virginia, is a leading developer of electronic money.<sup>84</sup> Founded in August, 1994, the company invented the electronic wallet which is intended to protect financial information, such as credit card numbers, and facilitate on-line commerce.<sup>85</sup> In essence, CyberCash seeks to provide a secure bridge between the Internet and the credit card payment system.<sup>86</sup> Under this system, the merchant sends the consumer an electronic invoice for a product for review by the consumer.<sup>87</sup> After reviewing the invoice the consumer attaches her credit card number which is encrypted by the CyberCash software before it is returned to the merchant.<sup>88</sup> The merchant attaches a confirmation number and then the entire set of information is forwarded to CyberCash for decoding and transmission to the credit card payment network.<sup>89</sup>

CyberCash has entered an arrangement with Mondex to offer its wallet technology in combination with the Mondex smart-card technology by mid-1997.<sup>90</sup> By attaching a smart card reader to a personal computer, consumers will be able to make purchases on the Internet or transfer value onto their Mondex smart card from their deposit accounts with banking institutions.<sup>91</sup>

Recently, CyberCash introduced a "cybercoin" which is intended to facilitate transactions on the Internet that cost between twenty-five cents and ten dollars.<sup>92</sup> CyberCash likens the cybercoins to a stack of casino chips.<sup>93</sup> It is expected that customers could use cybercoins for the micropayment of pictures or software downloaded from the Internet where the use of a credit card would be inefficient.<sup>94</sup> A number of banks, including First Union Corporation and Wachovia Corpora-

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84. Jennifer Kingson Bloom, *CyberCash Takes Early Lead in Race for New Currency Role*, AM. BANKER, Oct. 21, 1996, at 4A. The web page for Cybercash, Inc. is at <http://www.cybercash.com>. *Cybercash* (visited on Feb. 13, 1997) <<http://www.cybercash.com>>.

85. Bloom, AM. BANKER, Oct. 21, 1996, at 4A.

86. LYNCH & LUNDQUIST, *supra* note 50, at 26.

87. *Id.* at 27.

88. *Id.*

89. *Id.* "First USA Payment Tech, one of the leading processors of card transactions for merchants, is handling payments for CyberCash." Bloom, AM. BANKER, Oct. 21, 1996, at 4A.

90. Valerie Block, *Cybercash, Mondex Team Up to Put Smart Card on the Web*, AM. BANKER, Sept. 27, 1996 at 12.

91. *Id.*

92. Jennifer Kingson Bloom, *CyberCash 'Coin' for Internet Buying Attracts Banks*, AM. BANKER, Oct. 1, 1996, at 24.

93. Bloom, AM. BANKER, Oct. 21, 1996, at 4A.

94. *Id.*

tion, have agreed to offer cybercoins in pilot programs.<sup>95</sup> CyberCash also plans to introduce an electronic check in 1997 which would draw against a customer's account when a purchase is made.<sup>96</sup>

DigiCash, one of CyberCash's competitors, was founded in 1990 and has been a leader in the development of technologies using public key cryptography.<sup>97</sup> Led by American cryptography expert Dr. David Chaun, the Amsterdam-based company developed ECash.<sup>98</sup> ECash utilizes digital signature technology and the ability to encode messages and decode messages with the use of two numeric keys — a "private key" and a "public key."<sup>99</sup> As the terms suggest, one key is made public and the other is kept private.<sup>100</sup> Consumers and merchants use the bank's public key to decode messages.<sup>101</sup> Whenever the use of the public key produces a "meaningful message," the decoder can be assured that the message is an authentic message by the bank.<sup>102</sup> In the DigiCash system, the "message" is a string of numbers representing a "note" or electronic value.<sup>103</sup> In sum, the stored value is encoded with public key cryptography which merchants may authenticate with the issuing bank before accepting the ECash.

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95. Bloom, AM. BANKER, Oct. 1, 1996, at 24.

96. *Id.*

97. See DigiCash, *About DigiCash: What?* (visited on Feb. 13, 1997) <<http://digi-cash.com/digicash/company.html>>.

98. DigiCash, *DigiCash - Numbers That Are Money* (visited on Feb. 13, 1997) <<http://www.digicash.com/publish/digibro.html>> [hereinafter *DigiCash - Numbers That Are Money*].

99. *DigiCash - Numbers That Are Money*, *supra* note 98.

100. *Id.*

101. *Id.*

102. *Id.*

103. *Id.* DigiCash describes its electronic cash as follows:

In the basic electronic cash system, the user's equipment generates a random number, which serves as the 'note.' His equipment then 'blinds' the note using a random factor . . . and transmits it to a bank. In exchange for money debited from the user's account or otherwise supplied, the bank uses its private key to digitally sign the blinded note, and transmits the result back to the user. The user's equipment unblinds the note, which it later pays with. The payee checks that the note's digital signature is authentic and later sends the note on to the bank, who in turn checks the signature and credits the payee accordingly.

. . . Neither the user nor the payee can counterfeit the bank's signature. But either can verify that the payment is valid, since each has the bank's public key; and the user can prove that he made the payment, since he can make available the blinding factor. But because the user's original note number was blinded when it was signed, the bank can't connect the signing with the payment. The bank is protected against forgery, the payee against the bank's refusal to honor a legitimate note, and the user against false accusations and invasion of privacy.

*Id.*

ECash is part of a pilot program operated by Mark Twain Bancshares of St. Louis, Missouri.<sup>104</sup> Using a currency called "CyberBucks," participants in the pilot opened an account with Mark Twain Bank and downloaded the DigiCash software.<sup>105</sup> CyberBucks are loaded on the hard drive of a personal computer through a series of messages between the consumer and the bank.<sup>106</sup> Once the CyberBucks are created, the consumer may use the CyberBucks to make purchases on the Internet.<sup>107</sup> Like the Mondex system, ECash transactions offer a high degree of privacy. Privacy is inherent in the system because when the bank accepts the CyberBucks for redemption it uses the public key cryptography to authenticate the CyberBuck, but it cannot determine the individual who created the note.<sup>108</sup>

### C. ELECTRONIC CHECKS

Another potential mechanism for electronic payments is the electronic check which is currently being developed by a number of organizations. The Financial Services Technology Consortium ("FSTC"), a non-profit organization, is developing the E-Check as a means to facilitate payments on the Internet.<sup>109</sup> The E-Check is similar to the paper check, however, the check is created and settled electronically.<sup>110</sup> Specifically, an E-Check transaction is initiated by the completion of an E-Check on a computer screen.<sup>111</sup> The drawer of check places its

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104. *First Bank to Launch Electronic Cash* (visited on Feb. 26, 1997) <<http://www.marktwain.com/press1.html>> [hereinafter *First Bank to Launch Electronic Cash*]. See, e.g., MARTIN MAYER, *THE BANKERS* 177-78 (1997) (noting that both the merchant and consumer must have accounts at Mark Twain in order to participate in the program and highlighting problems with the program).

105. *First Bank to Launch Electronic Cash*, *supra* note 104.

106. *Id.*

107. *Id.*

108. *Id.*; Jeffrey Kutler, *Secure Electronic Transactions Standard Shows Signs of Life*, *AM. BANKER*, Jan. 31, 1997, at 14.

In addition to the electronic money ventures, a number of ventures are developing mechanisms to secure credit card transactions over the Internet. Shortly after the formation of CyberCash in 1994, Visa and Microsoft issued a joint announcement that they were working on a secure Internet payment system. Jeffrey Kutler, *A Big Win for the Card Associations, But More Challenges Ahead*, *AM. BANKER*, Sept. 16, 1996, at 12A. They were subsequently joined in their efforts by MasterCard, IBM and Netscape Communications Corporation. *Id.* The Internet payment protocol, Secure Electronic Transactions, was completed in mid-1996. *Id.* This protocol will allow for the secure transmission of credit card information over the Internet. *Id.*

109. Robert G. Ballen & Thomas Fox, *Legal Issues in the New World of Cyberbanking*, 912 *PLI/CORP.* 497, 505 (1995). The members of FSTC include banks, technology developers and universities. Ballen & Fox, 912 *PLI/CORP.* at 505. The home page for this organization is located on the World Wide Web at <http://www.fstc.org>. *Financial Services Technology Consortium* (visited on Feb. 13, 1997) <<http://www.fstc.org>>.

110. Ballen & Fox, 912 *PLI/CORP.* at 505.

111. *Id.*

"digital signature" on the check and then sends the check over the Internet to the payee.<sup>112</sup> To receive payment, the payee indorses the check by placing a digital signature on the check and depositing the check at the bank.<sup>113</sup> The interbank settlement is similar to the procedure for paper checks; the payee bank presents the E-Check to the drawee bank for payment.<sup>114</sup> Cybercash also plans to introduce an electronic check in 1997. The Cybercash electronic check will utilize the company's electronic wallet and allow customers to debit an account linked to their electronic wallet.<sup>115</sup> Electronic check payments are almost identical to current check processing procedures, including settlement procedures, making the application of current law less problematic.

#### D. ELECTRONIC BENEFITS

One of the potential uses for smart cards and the electronic money technology is the delivery of welfare, food stamps, and other government payments. In an attempt to reduce the costs associated with the disbursement of federal funds, Congress enacted legislation in 1996 which requires the Federal Government to make most of its estimated \$240 billion in annual payments electronically.<sup>116</sup> In fact, since July, 1996, any new recipient of government benefits had to accept the payments electronically unless the individual did not have an account at a financial institution.<sup>117</sup> Beginning in January, 1999, 30 million Americans who receive federal assistance or government subsidies will receive their payments electronically.<sup>118</sup> Similar action may soon be found on the state level.<sup>119</sup>

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112. *Id.*

113. *Id.* "Digital certificates are attached to the E-Check to authenticate the drawer and the paying bank." *Id.*

114. Ballen & Fox, 912 PLI/CORP. at 505.

115. Jennifer Kingson Bloom *Cybercash Begins Test of Virtual 'Check'; Electronic Wallet Item Can Be Used to Buy Goods or Pay Bills*, AM. BANKER, Jan. 31, 1997, at 6.

116. Debt Collection Improvement Act of 1996, § 3720C(x)(1), Pub. L. No. 104-134, 110 Stat. 1321-374.

117. Debt Collection Improvement Act of 1996, § 3720C(x)(1), Pub. L. No. 104-134, 110 Stat. 1321-376. Under the rules promulgated under the Debt Collection Act, all federal agencies must make electronic payments to individuals who, apply for "federal benefit programs, begin employment with a federal agency, apply for retirement benefits, enter into a contract or purchase order with the federal government or file or renew a grant application." *Electronic Money Issues*, *supra* note 25.

118. Management of Federal Agency Disbursements, 61 Fed. Reg. 39,254 (1996) (to be codified at 31 C.F.R. pt. 208); Thomas P. Vartanian, *Many Evolutionary Factors Point One Way: The Internet*, AM. BANKER, Dec. 23, 1996, at 4A.

119. Vartanian, AM. BANKER, Dec. 23, 1996, at 4A. Federal welfare legislation enacted in 1996 requires states to deliver food stamps electronically by the year 2002. *Id.* On January 15, 1997, the Federal Reserve Board issued proposed amendments to Regulation E to exempt certain electronic benefit transfer programs from the Electronic Funds Transfer Act. Proposed Rules, 62 Fed. Reg. 3242, 3242 (Jan. 22, 1997). The pro-

The new federal law will have a significant impact on the millions of Americans who do not maintain deposit accounts at financial institutions.<sup>120</sup> To implement the law, the Financial Management Services, an agency in the Department of Treasury, is considering a proposal to issue government benefits on a stored value card with a magnetic strip.<sup>121</sup> Initial proposals indicate that the recipients would be able to use the card at point-of-sale terminals.<sup>122</sup>

The Federal Government's initial attempts to implement a large scale electronic benefits program were challenged on the grounds that the government improperly excluded banks from the opportunity to deliver the program. In a recent decision, the United States Court of Appeals for the District of Columbia ruled that the United States Department of Treasury's decision to use a selection process favoring banks and excluding nonbank entities to choose an administrator for an Electronic Benefit Transfer ("EBT") system was arbitrary and capricious.<sup>123</sup> The EBT program was designed to permit individuals without an "electronically accessible" account at a financial institution to take advantage of the benefits of the electronic payment system.<sup>124</sup> The program was designed to distribute welfare funds in several southern states.<sup>125</sup>

The case arose when Transactive Corporation ("Transactive"), a nonbank entity filed an action to enjoin the use of the Invitation for Expression of Interest ("IEI") procedure for the selection process.<sup>126</sup> The Treasury Department sought to use the IEI procedure because it concluded that it was required to award the contract to distribute benefits to a financial institution.<sup>127</sup> Challenging the decision to restrict

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posed exemption would apply to "needs tested" EBT programs and EBT programs established by state or local governments. The proposed amendments implement provisions of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, Pub. L. No. 104-193, 110 Stat. 2105. According to the Federal Reserve's notice, the EFTA and Regulation E exemption was mandated by Congress in response to state concerns about compliance costs and liability restriction provisions.

120. In a speech in September 1996, Comptroller Ludwig announced that approximately 12 million American households do not have deposit accounts with financial institutions. He noted that many rural and inner-city households do not have the technology necessary to access electronic transfer. Eugene A. Ludwig, Comptroller of the Currency, Remarks at the Consumer Bankers Association Annual Convention (Sept. 20, 1996) (transcript available at <http://www.occ.gov> — New Release No. 96-103).

121. Videotape: Electronic Banking & Commerce: Finding Your Place in the Future (June 7, 1996) (on file with the *Creighton Law Review*) [hereinafter Videotape, Electronic Banking & Commerce].

122. Videotape, Electronic Banking & Commerce, *supra* note 121.

123. *Transactive Corp. v. United States*, 91 F.3d 232, 236 (D.C. Cir. 1996).

124. *Transactive Corp.*, 91 F.3d at 234.

125. *Id.*

126. *Id.* at 235.

127. *Id.* at 236. Under the IEI process, only financial institutions may be selected. *Id.* at 235. See 12 U.S.C. §§ 90, 265 (1994) (setting forth the provisions for the IEI pro-

the bid process to banks, Transactive argued that an alternative process under the Competition in Contract Act ("CICA") should have applied to the program.<sup>128</sup> The circuit court concluded that the Treasury Department used the IEI process based on its mistaken belief that only a financial agent of the Federal Government could legally fulfill the requirements of the program.<sup>129</sup> In reaching its decision, the circuit court distinguished the services that the government was seeking from the traditional role of a bank in the payment system.<sup>130</sup> The case is significant because it illustrates that information services can be distinguished from the transaction services needed for collection and settlement. In sum, even though the nonbank challenger did not have access to the payment system, it was qualified to provide the information services.<sup>131</sup> This decision may be significant in the analysis of the role of the issuer of electronic money.

## II. REVIEW OF THE EXISTING LAWS

The new electronic payment systems present a significant number of legal and regulatory issues. Our current payment system is subject to several laws and regulations which apply to the settlement of payments, including Fedwire, ACH and the Uniform Commercial Code ("UCC").<sup>132</sup> Current laws and regulations, however, do not contemplate transactions with electronic money.<sup>133</sup> For example, Articles 3 and 4 of the UCC do not apply because neither a stored value card nor

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cess); Depositories & Financial Agents of the Government, 31 C.F.R. § 202 (1996) (setting forth the regulations for the IEI process).

128. *Transactive*, 91 F.3d at 233-34. The CICA bidding process is the typical process for government contracts. *Id.* at 233. In contrast to the IEI process, CICA requires the government to select "any qualified vendor." *Id.* at 235. See 41 U.S.C. §§ 251-66 (1994) (setting forth provisions for public contracts); Federal Acquisitions Regulation System, 48 C.F.R. § 1.000 *et seq.* (1995) (setting forth the bidding process for public contracts).

129. *Transactive*, 91 F.3d at 236-37.

130. *Id.* at 239.

131. *Id.* at 241.

132. For over a decade, technology has been used to facilitate wire transfers, via computer or telephone lines. Businesses making large payments typically used Fedwire, the Clearinghouse Interbank Payments System (CHIPS), or the Society for Worldwide Interbank Financial Telecommunications (SWIFT) to complete transactions. Robert G. Ballen et al., *Electronic Payments: The New Recordkeeping Regulations*, 112 *BANKING L.J.* 786, 790 (1995). These electronic payments differ from the new stored value payment systems in several ways. First, in a transaction utilizing Fedwire, CHIPS, or SWIFT, a bank participates at some point in the transaction between the buyer and the seller. Ballen, et al., 112 *BANKING L.J.* at 798. In the stored value systems, banks will not participate in the payment transaction between the buyer and seller. Second, documentation for the electronic payments through Fedwire, CHIPS, and SWIFT is maintained and the payments are subject to recordkeeping rules. *Id.* at 790. In contrast, some stored value systems are being developed that will not maintain retrievable transaction records.

133. "[N]o comprehensive body of transactional rules defines the rights and obligations arising from electronic cash transactions." *Electronic Money Issues*, *supra* note 25.

the other forms of electronic money involve an "instrument," which by definition requires a "written undertaking to pay money."<sup>134</sup> Similarly, Article 4A does not apply because neither the stored value card nor the electronic money stored on a personal computer involve a "payment order."<sup>135</sup> With the stability of the payment system at risk, the regulation of electronic money and the issuers of the electronic money must be evaluated. Through the exercise of its power to regulate banks and currency, Congress should shape the necessary regulation of electronic money.<sup>136</sup>

#### A. IS IT MONEY?

Characterized by Federal Reserve Vice Chairman Blinder as a "new financial instrument — the electronic version of privately issued currency," by Comptroller of Currency Ludwig as an "alternate medium of exchange," and the industry as a form of "digital cash," the classification of electronic money has varied in recent months.<sup>137</sup> In many instances the characterization is based on the use of electronic money in commerce. Whether on a card or the hard drive of a personal computer, the current forms of electronic money involve the storage of "value" which is exchanged for goods or services. Understanding the role of electronic money in commerce, however, fails to capture its essence. Examination of the underlying features of electronic money is essential to understanding the need for its regulation.

The Constitution grants the Federal Government the power "to coin [m]oney, [and] regulate the [v]alue thereof."<sup>138</sup> Although it has

134. U.C.C. §§ 3-102(a), 3-103, 3-104, 4-102, 4-104 (1994). See Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. 40490, 40493 (1996) (discussing which laws apply and do not apply to stored value cards).

135. U.C.C. § 4A-103(1) (1994). Article 4A defines "payment order" as:

"Payment order" means an instruction of a sender to a receiving bank, transmitted orally, electronically, or in writing, to pay, or to cause another bank to pay, a fixed or determinable amount of money to a beneficiary if:

(i) the instruction does not state a condition to payment to the beneficiary other than time of payment,

(ii) the receiving bank is to be reimbursed by debiting an account of, or otherwise receiving payment from, the sender, and

(iii) the instruction is transmitted by the sender directly to the receiving bank or to an agent, funds-transfer system, or communication system for transmittal to the receiving bank.

*Id.*

136. See, e.g., *Veazie Bank v. Fenno*, 75 U.S. 533, 548-49 (1869) (finding that Congress has the power to regulate currency); *Norman v. Baltimore & Ohio R.R. Co.*, 294 U.S. 240, 303 (1935) (recognizing the broad power of Congress to regulate currency).

137. Blinder, *supra* note 26; Ludwig, *supra* note 26; Videotape, *Electronic Banking & Commerce*, *supra* note 121.

138. U.S. CONST. art. I, § 8, cl. 5. For an excellent overview of the history of money in the United States, see *A Commercial Lawyer's Take on the Electronic Purse: An Anal-*

this power, the Federal Government has not been the sole issuer of currency. Prior to the Civil War, paper money was issued by state and private banks.<sup>139</sup> During one particular period, the wildcat banking era, over 10,000 different types of notes were issued by state chartered banks.<sup>140</sup> This period came to an end with the passage of the National Bank Act of 1863 which authorized national banks to issue currency and imposed a 10 percent tax on all notes issued by state banks.<sup>141</sup> Shortly thereafter, in *The Legal Tender Cases*,<sup>142</sup> the United States Supreme Court held that statutes declaring the paper currency issued by Congress to be legal tender were constitutional.<sup>143</sup> When the Federal Reserve System was established in 1913 as a central banking structure, Federal Reserve Notes were issued by the Federal Reserve Banks to serve as currency in the United States.<sup>144</sup>

The ability to serve as "legal tender" defines money in the commercial law context.<sup>145</sup> The UCC defines "money" as "a medium of exchange authorized or adopted by a domestic or foreign government as a part of its currency."<sup>146</sup> Because the Federal Government has not yet adopted stored value cards as a medium of exchange, the value

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*ysis of Commercial Law Issues Associated with Stored Value Cards and E-cash*, A.B.A. SEC. BUS. L. REP. 17-23 (1996).

139. *Briscoe v. Bank of the Commonwealth*, 36 U.S. 257, 327 (1837) (refusing to declare state issued notes unconstitutional). See, e.g., Henry H. Perritt, Jr., *Legal and Technological Infrastructure for Electronic Payment Systems*, 22 RUTGERS COMPUTER & TECH. L.J. 1, 5 (1996) (discussing money's role in the conventional payment system); MARY L. KING, *THE GREAT AMERICAN BANKING SNAFU* 7-10, 14-16 (1985) [hereinafter KING] (discussing the history of the American banking system and the Wildcat Banking era); Howard H. Hackley, *Our Baffling Banking System*, 52 VA. L. REV. 565, 569 (1966) (discussing the development of the American Banking System before 1863).

140. KING, *supra* note 139, at 14. During this period, many private notes were redeemed at a discounted rate based on the credit worthiness of the issuing institution.

141. See, e.g., Act of Feb. 25, 1863, ch. 58, § 11, 12 Stat. 665, 668 (1863) (authorizing national banks to issue notes); *Veazie Bank*, 75 U.S. at 548-49 (declaring the tax constitutional).

142. 79 U.S. 457 (1870).

143. *The Legal Tender Cases*, 79 U.S. 457, 544 (1870). Legal tender is "coins and currency (including Federal reserve notes and circulating notes of Federal reserve banks and national banks) are legal tender for all debts, public charges, taxes and dues." 31 U.S.C. § 5103 (1994).

144. KING, *supra* note 139, at 18. Section 16 of the Federal Reserve Act authorizes the issuance of federal reserve notes. 12 U.S.C. §§ 411-422 (1994). Neither the greenbacks nor the United States notes displaced privately issued notes in the nation's money supply. Instead, the government paper and the private paper co-existed from the time of the Civil War to 1913 when the Federal Reserve Act was enacted. It took approximately 20 more years before national bank notes were no longer in circulation.

145. Economists use a broader definition of the term money. For economists money "consists of whatever is accepted in exchange for goods and services." CLAYTON P. GILLETTE, ET AL., *PAYMENT SYSTEMS AND CREDIT INSTRUMENTS* 1 (1996) [hereinafter GILLETTE, ET AL.].

146. U.C.C. § 1-201(24) (1994).

placed on stored value cards and personal computers will not constitute money for commercial law purposes.

Although Federal Reserve Notes are the only currency authorized by Congress to serve as legal tender, merchants may create their own private money to serve as money substitutes.<sup>147</sup> A store coupon is the simplest example of a type of private money. Electronic stored value also may be viewed as a form of private money which may be accepted in lieu of legal tender. However, the new electronic money systems lack essential characteristics of a money substitute. First, electronic "value" does not have the finality of cash. Merchants must submit the value to the issuing bank before they receive cash. Thus, the electronic money must move through a complex system before the transaction is completed. Second, it does not qualify as a money substitute because all current electronic money developments allow the holder of the stored value to redeem it for the national currency.<sup>148</sup> Because of these characteristics, electronic money is similar to the check payment system.

In the United States, most money consists of bank account credits which are circulated by check or electronically.<sup>149</sup> Bank credits eliminate the physical qualities of money and are circulated easily because a holder has confidence that the bank credits are redeemable for cash on demand from a bank.<sup>150</sup> The confidence of the holder is due in large part to the regulatory scheme for banks in the United States, including limited access to the banking industry and the protection against losses which may arise in the event of bank failure. Electronic money also lacks any physical properties. Indeed, it is invisible. Electronic money also constitutes a claim on the issuer for currency or a debit to a bank account.<sup>151</sup> However, in contrast to the bank account credits, the ability to redeem electronic money for cash on demand is more problematic.<sup>152</sup> In the absence of a federally issued electronic

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147. Statement of Jeffrey B. Ritter, Program Director, ECLIPS, Ohio Supercomputer Center and Chair, American Bar Association Committee on the Law of Commerce in Cyberspace Before the House Subcommittee on Domestic and International Monetary Policy "The Future of Money" (visited June 11, 1996) <<http://www.house.gov/castle/banking/ritters.htm>>.

148. Ideally, private money would operate like a national currency itself and thus be used as a medium of exchange. Economists argue that no economy may permit the issuance of private money on a large scale. GILLETTE, ET AL., *supra* note 145, at 8.

149. Richard A. Givens, *The Banking and Currency Power, Technology and the Future of the Market Economy*, 12 *COMPUTER & HIGH TECH. L.J.* 281, 281 (1996).

150. Deposits into accounts maintained by a bank constitute a claim against the bank. See generally *Smith v. Ajax Pipe Line Co.*, 87 F.2d 567, 569 (8th Cir. 1937).

151. Although the value could be transferred again in exchange for other goods or services, most current transactions involve a single exchange.

152. See *Electronic Money: So Much for the Cashless Society*, *ECONOMIST*, Nov. 26, 1994, at 21 ("The particular excitement of electronic money is that it poses the questions afresh in a pure, almost conceptual form: electronic money promises no intrinsic value,

stored value card, merchants cannot be assured of the strength of the issuer.<sup>153</sup>

If the value placed on a stored value card or computer hard drive constitutes a type of private money, issues may arise under the Stamp Payments Act of 1862.<sup>154</sup> The Stamp Payments Act established criminal sanctions for the making, issuance, circulation, or payment of any note, check, memorandum, token, or other obligation by any private entity for a sum less than \$1 if it is intended to circulate as money.<sup>155</sup> This prohibition appears to apply to any issuer of electronic money because the obligation is intended to be "received . . . in lieu of lawful money of the United States."<sup>156</sup> When the Stamp Payments Act was enacted in 1862, Congress obviously did not anticipate the creation of electronic coins. Legislative history suggests that the Stamp Payments Act was intended solely to address inflation caused by the issuance of private, small denomination bank notes in response to a shortage of government issued coins.<sup>157</sup> Recently, the United States Department of Treasury questioned the application of the Stamp Payments Act to electronic money.<sup>158</sup> Suggesting that the Stamp Payments Act should be construed narrowly, the Treasury Department called for clarification by the Department of Justice as "electronic cash systems evolve and expand."<sup>159</sup>

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and barely even the trace of physical existence. The Internet is about to push to the limit the question of what makes money worth what it is deemed to be worth").

153. In this respect, stored value is very similar to bank deposits. A bank deposit represents a claim against the bank. Similarly, stored value represents a claim against the issuer.

154. Thomas P. Vartarian et al., *Echoes of the Past with Implications for the Future: The Stamp Payments Act of 1862 and Electronic Commerce*, 67 *Banking Rep.* (BNA) 464, 464 (1996).

155. 18 U.S.C. § 336 provides:

[W]hoever makes, issues, circulates, pays out any note, check, memorandum, token, or other obligation for a less sum than \$1, intended to circulate as money or to be received or used in lieu of lawful money of the United States, shall be fined under this title or imprisoned not more than six months, or both.

18 U.S.C. § 336 (1994).

156. 18 U.S.C. § 336.

157. Vartarian, 67 *Banking Rep.* (BNA) at 464.

158. *Electronic Money Issues*, *supra* note 25. A background paper prepared for the United States Department of Treasury Conference in September on electronic money states:

Federal criminal law also restricts the issuance of obligations intended to circulate as money or to be used in lieu of lawful money; this restriction applies equally to banks and nonbanks. However, restrictions on the issuance of currency do not apply to electronic debit systems since those systems involve the transfer, rather than the issuance, of currency. On the other hand, the application of these laws to electronic cash is less certain since in some electronic cash systems the electronic value is intended to circulate as a cash equivalent or substitute.

*Id.*

159. *Electronic Money Issues*, *supra* note 25.

If electronic "value" is deemed to constitute "legal tender," the use of stored value systems will affect seigniorage.<sup>160</sup> The Federal Reserve is required to purchase and hold securities issued by the United States Treasury in an amount equal to outstanding cash.<sup>161</sup> The interest income on the securities from seigniorage, approximately \$20 billion annually, is turned over to the Treasury Department.<sup>162</sup> These earnings from seigniorage would be reduced substantially if electronic value is used instead of United States currency. The loss in revenue, however, could be limited if the government had the sole authority to issue electronic money.

While electronic money facilitates commerce, it is not appropriate to consider it as money or legal tender. Accordingly, electronic money should be subject to regulation based on its relationship to products and entities traditionally subject to regulation by federal banking regulators.

#### B. IS IT A DEPOSIT?

Given that electronic value does not constitute money or legal tender, many wonder if the funds underlying stored value cards or electronic money should be considered as deposits under the Federal Deposit Insurance Act. The General Counsel for the Federal Deposit Insurance Corporation (FDIC) issued an opinion in the Fall of 1996 examining the circumstances under which a stored value card will constitute a deposit and reaching several alternative conclusions based on the type of arrangement used for the stored value card system.<sup>163</sup> In the legal opinion, the FDIC discussed some of the stored value card systems in the market and concluded that while a stored value card may be designed in such a way that it would be covered by deposit insurance, most stored value cards do not represent funds covered by federal deposit insurance.<sup>164</sup>

The Federal Deposit Insurance Act specifies that only deposits qualify for deposit insurance.<sup>165</sup> Under this Act, a deposit arises whenever (1) an unpaid balance of money or its equivalent is received or held by a bank (2) in the usual course of business (3) for which the bank (i) is obligated to give credit to a commercial, checking, savings,

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160. *Id.* Seigniorage is the money the Federal Reserve makes as a byproduct of the production of currency and coins. *Id.*

161. Gleick, N.Y. TIMES MAG., June 16, 1996, at 30.

162. *Id.*

163. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,490.

164. *Id.* at 40,490-91, 40,494.

165. *See, e.g.*, 12 U.S.C. §§ 1813(m), 1821(a) (1994). An insured deposit is defined as "the net amount due to any depositor for deposits in an insured depository institution" less any part thereof that exceeds \$100,000. 12 U.S.C. §§ 1813(m), 1821(a)(1).

time or thrift account, or (ii) must hold for a special or specific purpose.<sup>166</sup> Addressing each of the three prerequisites for a deposit, the FDIC concluded that generally stored value cards do not qualify as deposits because the money is not held on behalf of a customer nor for a special purpose.<sup>167</sup>

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166. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,491. The Federal Deposit Insurance Act defines a deposit as follows:

The term "deposit" means —

(1) the unpaid balance of money or its equivalent received or held by a bank or savings association in the usual course of business and for which it has given or is obligated to give credit, either conditionally or unconditionally, to a commercial, checking, savings, time, or thrift account, or which is evidenced by its certificate of deposit, thrift certificate, investment certificate, certificate of indebtedness, or other similar name, or a check or draft drawn against a deposit account and certified by the bank or savings association, or a letter of credit or a traveler's check on which the bank or savings association is primarily liable: *Provided*, That, without limiting the generality of the term "money or its equivalent," any such account or instrument must be regarded as evidencing the receipt of the equivalent of money when credited or issued in exchange for checks or drafts or for a promissory note upon which the person obtaining any such credit or instrument is primarily or secondarily liable, or for a charge against a deposit account, or in settlement of checks, drafts, or other instruments forwarded to such bank or savings association for collection.

(2) trust funds as defined in this chapter received or held by such bank or savings association, whether held in the trust department or held or deposited in any other department of such bank or savings association.

(3) money received or held by a bank or savings association, or the credit given for money or its equivalent received or held by a bank or savings association, in the usual course of business for a special or specific purpose, regardless of the legal relationship thereby established . . .

(4) outstanding draft . . . , cashier's check, money order, or other officer's check issued in the usual course of business for any purpose, including without being limited to those issued in payment for services, dividends, or purchases, and

(5) such other obligations of a bank or savings association as the Board of Directors, after consultation with the Comptroller of the Currency, Director of the Office of Thrift Supervision, and the Board of Governors of the Federal Reserve System, shall find and prescribe by regulation to be deposit liabilities by general usage . . . .

12 U.S.C. § 1813(l). The Supreme Court emphasized the goals of this provision in *F.D.I.C. v. Philadelphia Gear Corp.*, 476 U.S. 426 (1986), in which the Court ruled that a standby letter of credit did not constitute a deposit for purposes of the Federal Deposit Insurance Act. Specifically, Justice O'Connor stated that "[t]he purpose behind the insurance of deposits in general, and especially in the section defining deposits as 'money or its equivalent,' therefore, is the protection of assets and hard earnings entrusted to a bank." *Philadelphia Gear*, 476 U.S. at 435.

167. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,494. The FDIC assumed that the second requirement, that the funds be received by the bank in the ordinary course of business, would be satisfied in all circumstances. *Id.* at 40,492.

### 1. *The FDIC's Classification of Stored Value Systems*

The FDIC identified four types of arrangements being developed for stored value systems.<sup>168</sup> In two of these systems, the Bank Primary-Customer Account System and the Bank Primary-Reserve System, a bank issues the card to the customer.<sup>169</sup> These systems differ with respect to the treatment of the underlying funds in each system. In Bank Primary-Customer Account Systems, funds remain in the customer's account until the merchant or other third party collects from the customer's bank.<sup>170</sup> In contrast, in Bank Primary-Reserve Systems, the issuing bank receives cash from the customer or immediately withdraws funds from the customer's account and places the funds in a reserve or general liability account from which the bank pays merchants as they make claims for payment.<sup>171</sup> The FDIC observed that most banks indicated that they will create a general liability account to hold the cash placed on stored value cards.<sup>172</sup>

In the two other systems, the Bank Secondary-Advance Systems and the Bank Secondary-Pre-Acquisition Systems, third party entities, rather than banks, hold the funds.<sup>173</sup> In Bank Secondary-Advance Systems, banks will agree to sell electronic value issued by a third party.<sup>174</sup> Upon receipt of the customer's funds, the bank will forward the funds to a third party entity which will be responsible for redeeming the electronic value.<sup>175</sup> Similarly, Bank Secondary-Pre-Acquisitions Systems are created whenever banks purchase electronic value from the third party and, in turn, sell the electronic value to its customers.<sup>176</sup>

### 2. *The "Deposit" Analysis*

The FDIC concluded that the first element in the definition of deposit, requiring that there be "an unpaid balance of money or its equivalent received or held by a bank or savings association," will be

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168. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,490.

169. *Id.*

170. *Id.* The FDIC noted that it was not aware of any such system currently being developed. *Id.*

171. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,490.

172. *Id.*

173. *Id.* In such systems, however, banks still act as intermediaries. *Id.*

174. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,490.

175. *Id.*

176. *Id.* The Bank Secondary-Pre-acquisition System is similar to the selling of third-party traveler's checks by banks. Traveler's checks, in various denominations, are given to banks which, in turn, sell the traveler's checks to consumers. The funds received in payment for the traveler's checks are forwarded to the third party.

satisfied in all of the Bank Primary Systems because banks will hold the funds and transfer the funds to payees.<sup>177</sup> However, the first requirement would be satisfied in only one of the Bank Secondary Systems, the Bank Secondary-Advance System.<sup>178</sup> In the Bank Secondary-Advance System, the depository institution holds funds for a period of time before forwarding the funds to a third party.<sup>179</sup>

While the FDIC concluded that the first element was satisfied in three of its four arrangements for stored value card systems, the FDIC concluded that the third element in the definition of "deposit," requiring that the bank be obligated to credit an account or hold the funds for a special purpose, is satisfied in two systems, the Bank Primary-Customer Account Systems and the Bank Secondary-Advance System.<sup>180</sup> In Bank Primary-Customer Account Systems, the bank does not remove any funds from the customer's account when the stored value card is issued.<sup>181</sup> Rather, the funds remain in the customer's account until the merchant or other payee seeks to redeem the stored value.<sup>182</sup> Because the funds are held in the customer's account until a claim is made, the funds will qualify for deposit insurance.<sup>183</sup>

Likewise, a deposit may be created in the Bank Secondary-Advance System. The "special purpose" requirement is satisfied in Bank Secondary-Advance Systems where the bank issues a stored value card and is required to forward the funds to a third party in a short period of time. In these systems, the funds are held by banks for the specific purpose of forwarding the funds. Notably, banks in Bank Secondary-Advance Systems hold a deposit of the third party, not a deposit of the consumer.<sup>184</sup>

A "deposit" is not created in two stored value card arrangements. As analyzed by the FDIC, neither Bank Primary-Reserve Systems nor Bank Secondary-Pre-Acquisition Systems, require the bank to credit funds used to purchase electronic value to a customer account.<sup>185</sup>

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177. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,491.

178. *Id.*

179. *Id.* The FDIC stated that the Bank Secondary-Advance System is indistinguishable from the treatment of traveler's checks. *Id.* Consumer funds used to purchase traveler's checks constitute deposits of the traveler's check company until the funds are forwarded to the company. *Id.*

180. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,492.

181. *Id.*

182. *Id.*

183. *Id.* The FDIC stated that "the funds underlying Bank Primary-Customer Accounts Systems would appear to be deposits." *Id.*

184. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,492.

185. *Id.*

Rather, in Bank Primary-Reserve Systems, the funds received from the customer are placed in a trust account until claimed by a merchant.<sup>186</sup> The funds held in the trust account are not "held for a special or specific purpose" because, as the FDIC opinion reasoned, the funds will be used to pay several merchants rather than "one pre-determined specific party."<sup>187</sup> When the funds are transferred from the general liability account to the merchant's account, however, then the funds qualify for deposit insurance.

Likewise, a "deposit" is not created in Bank Secondary-Pre-Acquisition Systems where, by definition, the bank advances funds in order to receive stored value cards for issuance to customers.<sup>188</sup> Thus, in Bank Secondary-Pre-Acquisition Systems, the customer's funds simply reimburse the bank for its prior purchase of the electronic value.<sup>189</sup> Therefore, no funds are held by the institution for a special purpose.

Under the FDIC's analysis, a bank may offer deposit insurance for a stored value card if the funds from the purchased card remain in the customer's account until a merchant requests payment from the bank. A major drawback for holders of insured stored value cards is that all transactions must be recorded to determine the value on a stored value card and the amount insured at a particular point in time. Accordingly, a customer with an insured stored value card will lose the ability to keep transactions confidential.

The FDIC opinion is limited in its application.<sup>190</sup> Specifically, it addresses only the circumstances under which the funds underlying stored value card systems in a depository institution will constitute a deposit within the meaning of section 3 of the Federal Deposit Insurance Act.<sup>191</sup> Accordingly, stored value card systems operating without a depository institution or placing electronic value on the hard drive of a personal computer rather than a card are not governed by the opinion. The Federal Deposit Insurance Act, however, gives the FDIC the power to declare that any obligation constitutes a deposit.<sup>192</sup> Nevertheless, because the language of the Act defines "deposit" in the context of banks, the declaratory power does not apply to stored value

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186. *Id.* Stored value systems generally use Bank Primary-Reserve Systems.

187. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,493 & n.11.

188. *Id.* at 40,492.

189. *Id.*

190. *Id.* at 40,493.

191. *Id.*

192. See 12 U.S.C. § 1813(l)(5) (1994). The FDIC has the authority to find and prescribe by regulation that some or all stored value card obligations of a depository institution are deposit liabilities by general usage. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,491.

systems operating without a depository institution. Clearly, if the FDIC had found that a deposit was created in these stored value systems, non-depository institutions would be forced out of the industry.<sup>193</sup> While the FDIC could use its declaratory power with respect to electronic money stored on the hard drive of a personal computer, it will probably be sufficient to analogize between the stored value card systems and the PC-based stored value systems.<sup>194</sup>

The FDIC's analysis appropriately focused on the location of the funds and the ability to identify the party who could claim the funds.<sup>195</sup> In concluding that only Bank Primary-Consumer Account Systems and Bank Secondary-Advance Systems create a deposit, the FDIC explained that the bank in these systems will hold funds and are obligated to give the funds to a specific individual.<sup>196</sup> The language in the FDIC's opinion will help structure the development of stored value card systems.<sup>197</sup>

### C. IS THE ISSUER A BANK?

Many types of financial institutions are subject to extensive regulation in the United States, including federal and state chartered depository institutions, check-cashing organizations, insurance companies and brokerage firms. Thus, a determination that all issu-

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193. A provision in the Glass-Steagall Act that defines "deposit" for criminal law purposes may make it impossible for non-depository institutions to operate a stored value system without the assistance of a depository institution. Specifically, the provision provides that it is a felony for "any person, firm, corporation, association, business trust, or other similar organization to engage . . . in the business of receiving deposits subject to check or to repayment upon presentation of a passbook, certificate of deposit, or other evidence of debt," unless the receipt is authorized by the federal or a state government. 12 U.S.C. § 378(a)(2) (1994). See, e.g., Melanie L. Fein, *In Cyberbanking, When Do Non-Banks Become 'Banks'?*, 15 No. 5 BANKING POL'Y REP. 10 (1996) (discussing whether non-banking entities offering electronic forms of money constitute a "bank" under federal or state law). If an electronic money system is not designed to avoid the creation of a 'deposit' outside of a bank, savings institution, or credit union, it may be challenged. Thomas P. Vartanian, *Key Question for Emerging Systems: Where is the Money?*, AM. BANKER, June 17, 1996, at 6A. Thus, it appears that non-bank entities must structure systems that avoid the application of the Glass-Steagall Act. *Id.*

194. The FDIC opinion noted that electronic payment systems are being developed to facilitate commerce on computer networks and suggested that the same general principles should be applied to electronic money stored on the hard drive of a personal computer. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,490.

195. John L. Douglas, *Stored Value Cards: The FDIC Gets It Right*, 1 ELEC. BANKING L. & COM. REP. 3, 4 (1996).

196. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,494.

197. The FDIC requested comments as to whether the agency should propose a regulation that some or all stored value card obligations of a depository institution are deposits and planned a hearing. Federal Deposit Insurance Corporation, *Stored Value Cards and Other Electronic Payment Systems*, 61 Fed. Reg. 40,494, 40,494 (1996).

ers of electronic money must be subject to oversight provides an alternative basis for the governmental regulation of electronic value. In other words, if nonbank entities may avoid FDIC regulation by simply structuring the stored value card in such a way as to avoid the creation of a deposit, regulation of the entity as a "bank" may provide the necessary protection for the consumer and the United States payment system.

The federal banking regulations do not contain a consistent definition of the term "bank." Under the National Bank Act, a bank is defined in terms of its functions.<sup>198</sup> Specifically, a bank is an entity that receives deposits, pays checks or makes loans.<sup>199</sup> This descriptive definition of the term "bank" is expanded in the Federal Deposit Insurance Act. In the Federal Deposit Insurance Act, "bank" is defined as including institutions chartered as banks or engaged in the business of receiving deposits.<sup>200</sup> This definition includes all institutions identified under the National Bank Act, as well as any other entity that is chartered as a bank under federal or state law.

Similarly, the Bank Holding Company Act defines "bank" as any FDIC-insured bank or any institution that accepts both demand deposits and engages in the business of making commercial loans.<sup>201</sup> Interpreting this definition in *Board of Governors of the Federal Reserve*

198. Fein, 15 No. 5 BANKING POL'Y REP. at 10.

199. The National Banking Act provides in part:

The term 'branch' as used in this section shall be held to include any branch bank, branch office, branch agency, additional office, or any branch place of business located in any State or Territory of the United States or in the District of Columbia at which deposits are received, or checks paid, or money lent.

12 U.S.C. § 36(f) (1994).

200. The Federal Deposit Insurance Act provides in part:

(1) Bank

The term "bank" —

(A) means any national bank, State bank, and District bank, and any Federal branch and insured branch . . .

(2) State Bank

The term "State bank" means any bank . . . or other banking institution which —

(A) is engaged in the business of receiving deposits, other than trust funds . . . and

(B) is incorporated under the laws of any State or which is operating under the Code of Law for the District of Columbia . . . .

12 U.S.C. § 1813(a) (1994).

201. Fein, 15 No. 5 BANKING POL'Y REP. at 10. The Bank Holding Company Act provides in part:

Except as provided in paragraph (2), the term "bank" means any of the following:

(A) An insured bank as defined in section 3(h) of the Federal Deposit Insurance Act. . .

(B) An institution organized under the laws of the United States, any State of the United States, the District of Columbia, any territory of the United States, Puerto Rico, Guam, American Samoa, or the Virgin Islands which both

*System v. Dimension Financial Corp.*,<sup>202</sup> the United States Supreme Court invalidated the Federal Reserve Board's interpretation of the statute which was intended to bring organizations that offered services similar to banking services under the regulation of the Federal Reserve Board.<sup>203</sup> The Supreme Court noted that the purpose of the Bank Holding Company Act was to "restrain the undue concentration of commercial banking resources and to prevent possible abuses related to the control of commercial credit."<sup>204</sup> The Supreme Court held that the "plain language" of the Bank Holding Company Act did not provide for the regulation of financial institutions which were "functionally equivalent of banks."<sup>205</sup>

Commentators have increasingly focused on the role of banks in financial intermediation and transaction services and consider the combination of these activities in one organization as constituting a bank.<sup>206</sup> In contrast to other financial intermediaries in the United States economy, only banks have access to the payment system developed by the Federal Reserve. While organizations have created systems that closely resemble the current payment system, none are involved as financial intermediaries.<sup>207</sup> However, whether the financial intermediation and transaction services are performed jointly in one organization, or separately in different organizations, the organi-

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- (i) accepts demand deposits or deposits that the depositor may withdraw by check or similar means for payment to third parties or others; and
  - (ii) is engaged in the business of making commercial loans.

12 U.S.C. § 1841(c)(1) (1994).

202. 474 U.S. 361 (1986).

203. Board of Governors of the Fed. Reserve Sys. v. Dimension Fin. Corp., 474 U.S. 361, 373 (1986). In *Dimension*, the Supreme Court considered a challenge to the Federal Reserve Board regulation which altered the definition of bank within the meaning of the Bank Holding Company Act. The Supreme Court found that the regulation's definition of a "bank" was impermissible for two reasons. *Dimension*, 474 U.S. at 365-73. First, the regulation interpreted the term "demand deposit" in the statute to include any deposit, which "as a matter of practice" was payable on demand. *Id.* at 363. The Supreme Court rejected this interpretation of the regulation because the statute specifically indicated that Congress was referring to deposits where the depositor had a legal right to demand the funds immediately. *Id.* at 367.

Second, the regulation broadened the definition of a "commercial loan" to include "the purchase of retail installment loans or commercial paper, certificates of deposit, bankers' acceptances and similar money market instruments." *Id.* at 363. The Supreme Court also rejected this interpretation provided by the regulation. *Id.* at 368-73.

204. *Dimension*, 474 U.S. at 365.

205. *Id.* at 373.

206. JONATHAN R. MACEY & GEOFFREY P. MILLER, BANKING LAW AND REGULATION 36-43 (1992) [hereinafter MACEY & MILLER].

207. *Id.* at 38. Jonathan Macey and Geoffrey Miller identify several non-bank entities that act as financial intermediaries, including pension funds, mutual funds and life insurance companies. *Id.* Some of these entities do not provide transaction services. *Id.*

zation is subject to extensive regulation.<sup>208</sup> Accordingly, organizations involved in electronic money systems should be subject to regulation.

The Banking Act of 1933 ("Glass-Steagall Act") is typically viewed as the Act which separates the banking industry from the securities industry. Section 21 of the Glass-Steagall Act prohibits any organization engaged in the business of selling securities from engaging in the business of accepting deposits.<sup>209</sup> This provision may prove to be a significant barrier to the participation of non-bank entities in stored value systems. In addition to this provision, Title 12 of the United States Code section 378(a)(2) provides that it is a felony for "any person, firm, corporation, association, business trust, or other similar organization to engage . . . in the business of receiving deposits subject to check or to repayment upon presentation of a passbook, certificate of deposit, or other evidence of a debt," unless the receipt is authorized by the federal or state government.<sup>210</sup> This section was interpreted by the Department of Justice in its evaluation of Merrill Lynch's "cash management account." If an electronic money system is not designed to avoid the creation of a "deposit" outside of a bank, savings institution, or credit union, it may be challenged by federal or state banking authorities.<sup>211</sup>

Two recent rulings by federal banking regulators involving money transmittal services suggest that the federal banking regulators are not yet ready to call electronic money providers "banks." First, in October, 1995, the Federal Reserve Board approved a request by Norwest Corporation ("Norwest") to establish a non-bank subsidiary

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208. MACEY & MILLER, *supra* note 206, at 37-39. A few organizations, such as ACH and SWIFT, have formed alternative payment systems that do not use the Federal Reserve. Each system, however, maintains an extensive set of guidelines to control the payment systems. KING, *supra* note 139, at 122-23. Similarly, credit cards operate as a separate payment system in the United States for which an extensive communication system exists for the approval and settlement of credit card transactions. *Id.* at 123. Again, however, a private set of rules and federal consumer protection laws apply to that system. *Id.*

209. 12 U.S.C. § 378(a)(1) (1994). 12 U.S.C. § 378(a)(1) provides in part: "(1) For any person . . . engaged in the business of issuing . . . securities, to engage at in the same time . . . in the business of receiving deposits. . . ." *Id.*

210. 12 U.S.C. § 378(a)(2). In the early 1980s, the Justice Department issued a decision stating that a cash management account offered by Merrill Lynch was not a taking of deposits. Fein, 15 NO. 5 BANKING POL'Y REP. at 10. Many states have statutes which prohibit the taking of deposits and transferring funds, classifying these activities as the unauthorized business of banking. See also *Nebraska ex. rel. Meyers v. American Community Stores Corp.*, 193 Neb. 634, 638-40, 228 N.W.2d 299, 302-03 (1975) (finding that the owner of a grocery store was not engaged in the banking business when a savings and loan association installed a computer terminal in the store to facilitate the electronic transfer of funds between the savings and loan and its customers and at no point did the store become a debtor of the customer/depositor).

211. Vartanian, AM. BANKER, June 17, 1996, at 6A.

to transmit funds to any third party for a fee.<sup>212</sup> Norwest explained that customers desiring to transmit funds to another party would give the non-bank subsidiary cash and a fee and receive a receipt evidencing the transaction from the non-bank subsidiary.<sup>213</sup> The non-bank subsidiary would then deposit the customer's cash in a trust account maintained with its parent bank and then order the transmittal of the funds to the third party.<sup>214</sup> One interesting aspect of the service was that the non-bank subsidiary would not agree to accept any deposits on behalf of the bank in which it maintained its trust account.<sup>215</sup> In a subsequent ruling, the OCC ruled that a national bank could accept money from non-bank affiliates for the purpose of transmitting funds to a foreign country without the affiliates being deemed a branch of the bank.<sup>216</sup>

Non-bank entities are currently offering a variety of bank-like services. Therefore, it is likely that non-bank entities will issue electronic value in exchange for United States currency. Under our current scheme, the entity would have to qualify as a bank before federal banking regulators could examine and control the activities of the issuer. Assuming the entities issuing smart cards and other electronic forms of electronic value are not banks and are not currently covered by our federal banking regulations, the question becomes whether the non-bank should be regulated, and if so, by what governmental agency.

#### D. ELECTRONIC FUNDS TRANSFER ACT AND REGULATION E

Another existing law which could have a tremendous impact on the developing electronic money technology is the Electronic Funds Transfer Act ("EFTA") and Regulation E, promulgated thereunder.<sup>217</sup> The EFTA and Regulation E protect consumers by establishing rights, liabilities and responsibilities of consumers and depository institutions.<sup>218</sup> Together, the EFTA and Regulation E limit consumer liability to \$50 in some circumstances for unauthorized withdrawals, set forth error resolution procedures requiring a depository institution to investigate and report within ten business days of a consumer complaint, control the issuance of account access devices and require vari-

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212. *Order Approving a Notice to Engage in the Activity of Transmitting Money Within the United States*, 81 FED. RES. BULL. 1130, 1132 (1995).

213. *Id.* at 1130.

214. *Id.*

215. *Id.*

216. Fein, 15 No. 5 BANKING POL'Y REP. at 10.

217. 15 U.S.C. §§ 1693-1693r (1994); Electronic Funds Transfers (Regulation E), 12 C.F.R. § 205 *et seq.* (1996).

218. 15 U.S.C. §§ 1693-1693r (1994); 12 C.F.R. § 205 *et seq.* (1996).

ous disclosures to consumers, including the issuance of a receipt for each transaction.<sup>219</sup>

The EFTA applies to any "electronic transfer" from an "account."<sup>220</sup> Regulation E, promulgated to implement the EFTA, defines electronic fund transfers as "any transfer of funds . . . that is initiated through an electronic terminal, telephone, or computer or magnetic tape for the purpose of . . . authorizing a financial institution to debit or credit an account."<sup>221</sup> This broad definition of account includes the traditional checking account as well as money market accounts and accounts established by the government for electronic benefit transfers. Likewise, the language "other consumer asset account" could include a customer account maintained at a nonbank institution organized for the purpose of issuing electronic money.

On May 2, 1996, the Federal Reserve Board issued a proposed rule for the application of Regulation E to stored value cards systems.<sup>222</sup> The Federal Reserve Board noted that stored value cards involve the transfer of funds through an electronic means by reading the magnetic strip of computer chip on the card.<sup>223</sup> Noting that the legislative history seems to give the Federal Reserve Board the ability to regulate non-bank entities engaged in electronic fund transfers and based on a desire to ensure uniform protection for consumers, the Federal Reserve Board's proposed rule focused on the type of stored value system rather than the entity issuing the card.<sup>224</sup> Specifically, the Board sought to determine whether the various systems involved an electronic transfer from a consumer's account.<sup>225</sup>

The proposed regulation described three types of stored value systems based on whether the system requires on-line approval of a transaction and whether the transaction data is recorded in a retriev-

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219. 12 C.F.R. § 205 *et seq.* (1996). "[T]he application of Reg E's current requirements and limitations could stifle the growth of electronic products that were not contemplated at the time the law and its regulations were drafted." Vartanian, *AM. BANKER*, June 17, 1996, at 6A.

220. Under Regulation E, the term "account" is defined as "a demand deposit (checking), savings, or other consumer asset account (other than an occasional or incidental credit balance in a credit plan) held either directly or indirectly by a financial institution and established primarily for personal, family or household purposes." 12 C.F.R. § 205.2(b).

221. 12 C.F.R. § 205.2(g).

222. *Stored Value Systems*, 61 Fed. Reg. 19,698, 16,698 (1996) (to be codified at 15 U.S.C. pt. 205.16) (proposed May 2, 1996).

223. *Stored Value Systems*, 61 Fed. Reg. at 19,699.

224. *Id.* The Federal Reserve Board noted that the Senate Banking Committee reports indicate that the definitions of "financial institution and account" were intentional in order "to assure that all persons who offer equivalent EFT services involving any type of asset account are subject to the same standards and consumers owning such accounts are assured of uniform protection." *Id.*

225. *Stored Value Systems*, 61 Fed. Reg. at 19,698.

able fashion.<sup>226</sup> Unlike the four systems described in the FDIC legal opinion, the Federal Reserve Board classification is based on whether the system is on-line, off-line, accountable or unaccountable.<sup>227</sup> The Federal Reserve Board distinguished between on-line and off-line systems based on whether authorization for the transaction requires communication with a database.<sup>228</sup> The Federal Reserve Board described "unaccountable" systems as systems where all transaction records are stored on the card itself and "accountable" systems as systems where the maintenance of transaction records are separate from the card.<sup>229</sup> Thus, the three systems identified by the Federal Reserve Board include (1) the off-line accountable stored value systems, (2) the off-line unaccountable stored value systems and (3) the on-line stored-value systems.<sup>230</sup>

The three types of systems are defined as follows: (1) Off-line accountable systems are systems where there is no authentication or authorization for a transaction, but a central database recording values and transactions is maintained apart from the card;<sup>231</sup> (2) off-line unaccountable systems do not require the authorization for a transaction and no central database maintains information about card balances or transactions;<sup>232</sup> (3) on-line systems rely on on-line verification and authorization for transactions and record all transaction information into a central database.<sup>233</sup> The Board's proposal considers each system's ability to comply with Regulation E's various requirements and the impact the compliance would have on the developing technology.

The Board concluded that off-line accountable systems would have a partial exemption from Regulation E requirements. Citing the need to remove barriers to technological developments, the Board pro-

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226. *Id.* at 19,699.

227. *Id.*

228. *Id.* In on-line systems, authorization for the transaction requires communication with a database. *Id.* Authorization for a transaction in off-line systems, however, does not require communication with a database. *Id.*

229. Stored Value Systems, 61 Fed. Reg. at 19,699. In off-line accountable stored value systems, the consumer may access funds from an account with the card and a record of the transaction, including the value of the transaction, because a database is maintained apart from the card. *Id.* In off-line unaccountable stored-value systems, the value on the stored value card is debited for each transaction, however, no record of the transaction is maintained apart from the card. *Id.* Rather, all transaction data and the card balance are maintained on the card and "[o]nly the aggregate amount of transactions for a given period is transmitted by the merchant to a financial institution or other entity so that the merchant can receive credit." *Id.* On-line stored value systems are the "functional equivalent" of a debit card system. *Id.* Specifically, the merchant must communicate on-line to obtain authorization for a transaction and all information related to the transaction is maintained by the issuing company. *Id.*

230. Stored Value Systems, 61 Fed. Reg. at 19,699.

231. *Id.*

232. *Id.*

233. *Id.*

posed that off-line accountable systems would not be subject to the restrictions on unsolicited issuance of access devices, the disclosure notice provisions for changing the terms of on-line transactions, transaction receipt requirements, liability provisions and error resolution procedures. In short, initial disclosure provisions requirements would be the only requirements for off-line accountable systems. In contrast, the proposal would subject all on-line systems to the majority of Regulation E's requirements with a few exceptions related to consumer disclosures.<sup>234</sup>

In contrast, the proposed amendments will exempt off-line unaccountable stored value systems from all Regulation E requirements. While noting that the exemption for all off-line unaccountable cards might provide an "incentive" for the development of a specific type of stored value system, the Board concluded that the minimal requirements for off-line, accountable systems would not have "much impact" on the types of stored value systems being developed. In addition, the proposed amendments would exempt from Regulation E all stored value cards with values of \$100 or less.<sup>235</sup>

The Board's proposal represents one of the first steps towards providing consumer protections in stored value systems. While the proposal eliminates many of the consumer-oriented protections of Regulation E, it represents a thoughtful attempt to re-evaluate paper-oriented regulations in light of technological developments. The comment period for the Board's Regulation E proposal closed on September 6, 1996. During the comment period, the Board received 135 comments. The comments focused on the highly technical aspects of the proposal, making it possible for one card to be subject to a variety of requirements, and therefore, too confusing for consumers.<sup>236</sup> The Board's ability to proceed with the amendments was constrained by the Economic Growth and Regulatory Paperwork Reduction Act of 1996.<sup>237</sup> Under this legislation, the Board is required to submit a report to Congress by the end of March, 1997, concerning the role of

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234. On-line stored value cards would not be required (1) to send periodic statements to cardholders provided the issuer creates a method for cardholders to check balances on devices and, upon request, give cardholders a written 60-day transaction history; or (2) to send change in terms notices to cardholders. In addition, the Board proposes to modify the error resolution procedures by establishing that the 60-day period to report unauthorized transactions will begin upon the transmittal of a written account history to a cardholder and requiring the financial institution to respond to the error within 60 days after oral or written notice of the error by the consumer. *Stored Value Systems*, 61 Fed. Reg. 19,704-05.

235. *Stored Value Systems*, 61 Fed. Reg. 19,701, 19,704.

236. Lynne B. Barr, *Stored Value Cards: Emerging Disclosure Standards*, 1 No. 7 ELEC. BANKING L. & COM. REP. 2 (Jan. 1997).

237. Economic Growth and Regulatory Paperwork Reduction Act of 1996, Pub. L. No. 104-208, 110 Stat. 3009 (to be codified in scattered sections of 12 U.S.C.).

electronic money in the United States economy. In addition, the Act placed a moratorium on the Board's activities in this area by restraining further action until at least the end of June, 1997.

After considering the ability to comply with Regulation E requirements in each system and the impact compliance would have on the developing technology, the Federal Reserve Board concluded that all off-line unaccountable stored value cards would be completely exempt from Regulation E.<sup>238</sup> In contrast, off-line accountable stored value systems would be subject to the initial disclosure rules in Regulation E, including rules concerning the disclosure of fees, costs, consumer liability for unauthorized transactions, and error resolution procedures.<sup>239</sup> Finally, on-line stored value systems would be subject to all Regulation E requirements, just as debit cards are subject to Regulation E.<sup>240</sup> The Federal Reserve Board also proposed to grant a general exemption for any stored value card issued for \$100 or less.<sup>241</sup>

Although the language of the proposed ruling is somewhat awkward, the Federal Reserve Board's proposed ruling successfully captures the essence of most stored value systems under development and determines the application of the consumer protection provision based on the characteristics of the system. In other words, the Federal Reserve Board did not attempt to rule that all systems must satisfy a specific, pre-determined set of standards. The Federal Reserve Board, however, recognized that its ruling could have an impact on the development of stored value systems, but concluded that the impact would be minimal.<sup>242</sup>

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238. Stored Value Systems, 61 Fed. Reg. at 19,701.

239. *Id.* at 19,699-701.

240. *Id.* at 19,702.

241. *Id.* at 19,703.

242. *Id.* at 19,702. "There is some risk that the application of Regulation E to off-line accountable stored-value systems, but not to off-line unaccountable systems, could act as an incentive for developers of stored-value systems to structure systems as unaccountable in order to avoid being covered under the regulation. It is not desirable to have system design be guided by regulatory rather than economic considerations. However, the requirements applicable to off-line accountable systems - initial disclosures - are so minimal when compared to other factors that could affect system design . . . that it seems unlikely the potential for coverage by Regulation E would have much impact." *Id.*

The Economic Growth and Regulatory Paperwork Reduction Act of 1996 constrained the Federal Reserve from taking any additional steps to implement its proposed regulation. Economic Growth and Regulatory Paperwork Reduction Act of 1996, Pub. L. No. 104-208, 110 Stat. 3009 (to be codified in scattered sections of 12 U.S.C.). The comment period for the proposed regulations closed on August 1, 1996. Stored Value Systems, 61 Fed. Reg. at 19,696. Congress required the Federal Reserve Board to conduct a study and submit a report to Congress by the end of March 1997. Federal Reserve Board Study, Pub. L. No. 104-208, § 2601 (1996) (to be codified as 12 U.S.C. § 1821). The moratorium for further action by the Federal Reserve Board on its pro-

## E. OTHER LEGAL ISSUES

There are a host of other legal questions and public policy concerns related to the development and use of electronic payment systems. Federal and state laws concerning crime, privacy, escheat, money laundering and taxation are but a few of the many areas which must be reviewed for application in an electronic environment.<sup>243</sup>

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posed regulation was extended until 90 days after the report is to be submitted or June 1997, whichever is longer. *Id.*

243. See generally CONGRESSIONAL BUDGET OFFICE, EMERGING ELECTRONIC METHODS FOR MAKING RETAIL PAYMENTS (1996). One of the critical issues facing banks is the safeguarding of the computer networks and prevention of counterfeiting. As banks move into the electronic age and permit customers to bank electronically, measures must be developed to protect bank computer networks from unauthorized access. Losses from criminal activity have already occurred in the banking industry. For example, one computer hacker managed to steal \$400,000 from Citicorp before authorities detected the activity. Jaret Seiberg, *To Stem Computer Privacy, New York Fed Begins Major Review of Banks' Precautions*, AM. BANKER, Nov. 8, 1996, at 3.

Another significant risk arises with the use of electronic money. Most developers of stored value cards use cryptography to protect against the unauthorized creation of electronic value. The Task Force organized by the Central Bank Governors for the G-10 countries studied the security measures available for electronic money. *Security of Electronic Money: Report by the Committee on Payment and Settlement Systems and The Group of Computer Experts of the Central Banks of the Group of Ten Countries 1-4* (August 1996). The Task Force concluded that sufficient security measures were available for electronic money and that the primary method for fraud prevention was the use of cryptography. *Id.* at 63-64. Nevertheless, research scientists at Bell Communications Research have discovered that a sophisticated criminal could create counterfeit stored value by tampering with the microchip embedded in a smart card. *Financial Digest*, WASH. POST, Sept. 27, 1996, available at 1996 WL 12721883. The Clinton Administration announced a policy in October 1996 which will facilitate international electronic transactions. *Commercial Encryption Export Controls* (visited on Feb. 13, 1997) <<http://www.bxa.doc.gov/encstart.htm>>. The policy permits U.S. companies to export encryption products on a limited basis. *Id.* In addition to the potential abuses associated with the unauthorized use or creation of electronic money, new state laws, such as Georgia's, prohibiting transmission of false data may reach outside the enacting state, leading to a host of important jurisdictional questions. See GA. CODE ANN. § 16-9-93.1 (1996).

Without a doubt, the technological advances have invigorated international crimes, such as money laundering. Lax banking laws on many islands have led to the establishment of banks to accommodate money laundering schemes. Linda Robinson & Doug Pasternak, *Rum Sort of Banking: Drug Traffickers and Con Artists Vie in the Crowded Waters Offshore*, U.S. NEWS & WORLD REP., Oct. 28, 1996, at 38-41. For example, Antigua, a Caribbean island, does not have any reporting requirements for large cash transactions, and in contrast to the United States, its secrecy laws protect bank customer confidentiality. *Id.* Indeed, once the money is deposited into unregulated banks, the money can legitimately be transferred by wire to any other bank in the world. *Id.* The increasing use of the Internet by offshore banks makes the difficult job of law enforcement impossible. *Id.*

Many believe that privacy issues will be a significant hinderance to the use of electronic money by consumers. While some electronic money systems attempt to ensure privacy through the use of cryptography, other systems that a consumer will encounter will gather information about consumer behavior, product preferences or medical information. See Gliick, N.Y. TIMES MAG., June 16, 1996, at 50 ("If the network can follow the trail of all your spending, it can become more omniscient than a private detective

### III. WHAT IS THE PROPER ROLE OF GOVERNMENT

Federal agencies are struggling to determine the proper role of government in light of the new technologies introduced to the public on a daily basis.<sup>244</sup> Electronic money, like other aspects of the new technology, does not seem to fit well into the current legal statutory and regulatory scheme. Federal regulators are debating the proper role of government in electronic banking and commerce.<sup>245</sup> In fact, both the Federal Deposit Insurance Corporation and the United States Department of Treasury held conferences in September, 1996, to discuss the development of electronic money systems and the appropriate role of government.<sup>246</sup> Accordingly, it is appropriate to review

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who follows you around with a camera.”). Some consumers may resist the use of electronic money to protect against the unauthorized disclosure of information.

Within the European Union, the protection of personal data is considered a human right. Fred H. Cate, *EU Data Protection Directive, Information Privacy, and the Public Interest*, 80 IOWA L. REV. 431, 432 (1995). The unauthorized disclosure of personal data is governed by a European Union Directive “on the protection of individuals with regard to the process of personal data and on the free movement of such data.” Cate, 80 IOWA L. REV. at 433. Under this Directive, the processing of personal data, defined broadly, may occur “only with the consent of the data subject, when legally required or to protect public interest or the legitimate interest of a private party.” *Id.* at 434. See generally *Symposium: Data Protection Law and the European Union’s Directive: The Challenge for the United States*, 80 IOWA L. REV. 431, 431-695 (1995) (discussing generally the implications of the European Union’s data protection law in the United States). Similar restrictions on disclosure of information obtained through the use of electronic money may arise in the United States. See generally Catherine M. Downey, Comment, *The High Price of a Cashless Society: Exchanging Privacy Rights for Digital Cash?*, 14 J. MARSHALL J. OF COMPUTER & INFO. L. 303, 315 (1996) (discussing the need for protection of privacy with respect to electronic money).

Finally, the use of the new electronic payment system concerns the taxation of electronic commerce transactions. The key feature of the electronic payment system, anonymity, poses a significant problem for the collection of taxes. The new system will make it difficult to trace transactions, and, importantly, it will be difficult to ensure that all reporting regulations are followed.

244. In an address to the Payment System Research and Public Policy Conference, Alan Greenspan, Chair of the Federal Reserve Board, outlined the major innovations in money and noted that most of the recent innovations have to do with the payment system infrastructure. Federal Reserve Chairman Alan Greenspan, Remarks at the Payment System Research and Public Policy Conference (Dec. 7, 1995) (on file with the *Creighton Law Review*).

245. OCC Ludwig recognizes the need for a “thoughtful debate on how to create a competitive, high-tech, safe and sound financial services industry.” *Ludwig Warns Banks About Need for Debate on Electronic Issues*, 15 BANKING POL’Y REP. 24, 26 (1996).

246. *Toward Electronic Money & Banking: The Role of Government, A Conference Sponsored by the United States Department of the Treasury* (visited on Feb. 13, 1997) <<http://www.occ.treas.gov/emoney/pitof.htm>> [hereinafter *U.S. Treasury Conference*]; Federal Deposit Insurance Corporation General Counsel’s Opinion No. 8: Stored Value Cards, 61 Fed. Reg. at 40,497. The FDIC held a one-day hearing on September 12, 1996 to discuss its request for comments on a proposal to issue regulations regarding its legal opinion. *Id.* The Treasury Department sponsored a two-day conference, September 19 through September 20, 1996, to discuss a variety of issues related to electronic money and commerce. *U.S. Treasury Conference, supra*. The variety of government speakers at the conference demonstrated the breadth of the impact electronic money will make on

some of the recent activities by federal banking regulators and consider the steps that should be taken to regulate this new form of money.

#### A. OVERVIEW OF RECENT ACTIVITIES — FEDERAL BANKING AGENCIES

##### 1. *Office of the Comptroller of the Currency (OCC)*

In the ongoing debate concerning the modernization of the financial industry, the OCC has repeatedly maintained that the "business of banking" must be interpreted broadly in light of continuing developments in the financial marketplace. Examples of this broad definition of the business of banking can be seen in OCC's efforts to remove barriers to the use of new technology in the business of banking. In a series of letter rulings over the past thirteen years, the OCC has authorized banks to use technological developments in providing banking services.<sup>247</sup>

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government regulation. *Id.* Many viewpoints were also expressed about the appropriate role for government. *Id.* For example, in addition to the efforts by the U.S. Treasury Department, OCC, FDIC and the Federal Reserve Board, the Federal Trade Commission ("FTC") will help study the regulatory role of government in electronic commerce. *Id.* Outlining the work of the FTC, FTC Chairman Robert Pitofsky expressed a preference for market regulation of electronic commerce, arguing that "aggressive government regulation could chill voluntary private arrangements and . . . prevent the market from developing optimal solutions." *Competition and Consumer Protection Concerns in the Brave New World of Electronic Money, Remarks by Robert Pitofsky, Chairman U.S. Federal Trade Commission* (visited on Feb. 13, 1997) <<http://www.occ.treas.gov/emoney/pitof.htm>> [hereinafter *Pitofsky*].

247. See OCC Interpretative Letter No. 677, [1994-95 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 83,625, at 71,851 (June 28, 1995) (allowing banks to offer home banking and financial management software); OCC Interpretative Letter No. 653, [1994-95 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 83,601, at 71,801 (Dec. 22, 1994) (allowing a bank subsidiary to act as an information and payment interface between insurance underwriters and insurance agencies); OCC Interpretative Letter No. 611, [1992-93 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 83,449, at 71,572 (Nov. 23, 1992) (allowing banks to use a smart phone to conduct bank transactions with customers); OCC Interpretative Letter No. 516, [1990-91 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 83,220, at 71,280 (July 20, 1990) (permitting bank subsidiary to enter into a joint venture providing information analysis and execution services); OCC Interpretative Letter No. 449, [1988-89 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 85,673, at 78,061 (Aug. 23, 1988) (allowing bank subsidiary to provide software for back room operations of financial institutions); OCC Interpretative Letter No. 345, [1985-87 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 85,515, at 77,799 (July 9, 1985) (allowing banks to sell computer hardware as part of bank data processing services); OCC Interpretative Letter No. 284, [1983-84 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 85,448, at 77,610 (March 26, 1984) (allowing bank subsidiary to engage in software activities). Through these OCC interpretative letters, banks' data-processing activities have progressed from performing data-processing within the bank to the marketing of the products of data-processing activities by banks. Ellen d'Alelio, *Optimizing the Use of Bank's "Electronic Capacities": The OCC's Revised Interpretive Ruling*, 1 ELEC. BANKING L. & COM. REP. (No. 4) 2, 3 (Sept. 1996).

In August, 1995, the Secretary of the Treasury appointed the Comptroller of the Currency to coordinate all the activities of the Treasury Department with respect to electronic commerce.<sup>248</sup> Thereafter, the OCC took several bold steps which clearly recognize the ability of national banks to utilize a number of new technologies to deliver banking services. A review of recent regulatory revisions, interpretative letters and press releases demonstrate that the OCC has studied developments in electronic money and is ready to allow national banks to redesign their delivery systems for these new financial services.

Perhaps one of the most dramatic steps taken by the OCC in recent months was the approval of requests from four national banks, Wells Fargo Bank N.A., Michigan National Bank, First National Bank of Chicago and Texas Commerce Bank, to establish the Mondex system in the United States.<sup>249</sup> The four banks filed applications seeking permission to establish operating subsidiaries for the sole purpose of investing in the limited liability companies which will operate the Mondex system in the United States.<sup>250</sup> Finding that the standards for minority investments by operating subsidiaries were satisfied, the OCC approved the applications.<sup>251</sup> In its letter approving the applica-

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248. *Electronic Money Issues*, *supra* note 25. At the Treasury Conference in September 1996, Secretary of the Treasury, Richard Lubin, announced the formation of the Consumer Electronic Payments Money Task Force. *Id.* Chaired by Ludwig, Comptroller of the Currency, representatives of many federal agencies are participating in this Task Force. *Id.* In March 1997, the Consumer Electronic Task Force issued its mission statement and outlined its plans to study electronic money. Specifically, the Task Force will host informal meetings with industry representatives and public meetings to identify consumer issues raised by electronic money and to evaluate whether current laws and regulations address the issues or can be addressed through voluntary, nonregulatory approaches. *Consumer Electronic Payments Task Force Announces Action Plan and Mission Statement*, CONSUMER ELECTRONIC PAYMENTS TASK FORCE NEWS RELEASE, March 19, 1997, available at <[www.occ.treas.gov/ftp/release/97-31.txt](http://www.occ.treas.gov/ftp/release/97-31.txt)> (visited May 8, 1997).

249. *Notices of Wells Fargo Bank, N.A., Michigan National Bank, First National Bank of Chicago, and Texas Commerce Bank of Intent to Establish and Operating Subsidiary Pursuant to 12 C.F.R. 5.34 to Become a Member of Limited Liability Companies Operating a Stored Value System*, available at 1996 WL 742601 (O.C.C.) (Dec. 2, 1996) [hereinafter *Notices*].

250. *Id.* As described in the letter ruling, the three corporations, AT&T Universal Bancorp Services, Inc., NOVUS Services, Inc. and NAB (collectively referred to as the "U.S. Founders") received the rights to develop the Mondex system in the United States. *Id.* To do so, the U.S. Founders will establish two limited liability companies which will 1) serve as originator for the issuance, sale and redemption of electronic value; and 2) license and service the Mondex system. *Id.*

251. *Notices*, *supra* note 249. At the time the OCC issued its opinion, the amended rules for operating subsidiaries, 12 C.F.R. 5.34, were not in effect. Thus, the Mondex ruling was made under the previous rule for operating subsidiaries. *Id.* Under the previous rules, the OCC permitted national banks to invest in an operating subsidiary engaged in the same activities that the bank itself could engage in. 12 C.F.R. § 5.34 (1996). The regulation required that the national bank own at least 80% of the voting stock of the operating subsidiary. *Id.* Despite the 80% rule, the OCC has repeatedly

tions, the OCC focused on the requirement that the activities of the enterprise would be limited to the business of banking, noting that the business of banking has traditionally included activity that is the "functional equivalent" of an established banking activity.<sup>252</sup> The OCC explained that "[t]he issuance, circulation and redemption of notes was one of the principal reasons Congress established the national banking system," and concluded that the issuance, redemption, clearing and settlement of electronic stored value was the "functional equivalent" or "logical outgrowth" of the business of banking by a national bank.<sup>253</sup>

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allowed national banks to participate in joint ventures thorough the operating subsidiary structure. See generally John L. Douglas, *OCC Op Sub Letter Facilitates Investments in Technology Companies*, 1 ELEC. BANKING L. & COM. REP. 18 (1996). In 1994, the OCC proposed amending this rule to reduce the ownership interest to 50%. This proposal was adopted in a final rule issued in November 1996. Rules, Policies, & Procedures for Corporate Activities, 61 Fed. Reg. 60,342, 60,348-50, 60,374-76 (Nov. 27, 1996). The new rule permits national banks to organize and hold 50% of the voting shares in an operating subsidiary (or less if the bank has control of the subsidiary and no other entity holds more than 50% of the voting shares). The rule also provides that the operating subsidiary may engage in activities that are part of the business of banking or incidental to the business of banking. Rules, Policies, & Procedures for Corporate Activities, 61 Fed. Reg. at 60,374. Perhaps the most controversial aspect of the new regulation is the Comptroller's indication that it may, on occasion, permit an operating subsidiary to engage in an activity that "may not be permissible for the bank itself, but may be appropriate for a bank operating subsidiary." OCC News Release 96-129, *Questions and Answers on Part 5* (Nov. 29, 1996) (on file with the *Creighton Law Review*). Some commentators believe the rule will permit banks to forego the bank holding company structure in the offering of a variety of financial services. See Bert Ely, *New OCC Rule May Trigger A Wave of Sweeping Changes*, AM. BANKER, Dec. 11, 1996, at 4. Others suggest that the OCC exceeded its statutory power in promulgating the rule. *Bank "Powers" Actions Criticized by House Banking Chair*, Fed. Banking L. Rep. (CCH) at 1 (Jan. 3, 1997). The OCC's new operating subsidiary rule may prove to be a significant decision in the development of opportunities for depository institutions seeking to develop and offer electronic payment systems.

252. *Notices*, *supra* note 249, at 3.

253. *Id.* at 3, 4. Specifically, the OCC stated that:

The functional equivalence and logical outgrowth lines of analysis which the courts have applied to current banking functions in the process of reviewing new activities of national banks can be multi-dimensional — the equivalence or outgrowth can involve both evolutionary advances in products and services as well as the integration of adjacent types of businesses that are useful to perform and deliver modern forms of banking and financial transactions.

*Id.* The Office of Thrift Supervision ("OTS"), an agency within the U.S. Department of Treasury, has also issued an opinion concerning the power of federal savings associations to market and sell stored value cards in the form of prepaid telephone cards. Under the Homeowners' Loan Act, federal savings associations have the power to engage in activities that are incidental to their express powers. Using a four-part test, the OTS concluded that the sale of prepaid cards was "intimately related to the financial intermediary role" of a federal savings association, was consistent with congressional plans for the purpose and function of savings associations, was similar to an activity expressly authorized for savings associations, and was necessary for savings associations to remain competitive. See OTS General Counsel Opinion, [Current Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 83,103, at 94,211 (Aug. 29, 1996).

A limited liability corporation provided the vehicle for a similar request to provide electronic money.<sup>254</sup> Specifically, in a letter issued in August of 1996, the OCC approved a request by a national bank to obtain a minority interest in a limited liability company formed for the development and implementation of a stored value and information system.<sup>255</sup> Under the proposal, the limited liability company planned to market the system to universities, hospitals, theme parks, and military establishments.<sup>256</sup> The OCC concluded that the proposal to obtain a minority interest in a limited liability company satisfied the four standards established by the OCC for such investments by national banks.<sup>257</sup> In evaluating the proposal, the OCC noted that the requesting bank had a reputation as an "innovator" in the area of stored value card systems and that the limited liability company would be used to "effectuate transfers of financial value" and, for a variety of reasons, including increasing customer convenience and expanding bank services, the investment would have a "beneficial connection to the bank's business."<sup>258</sup>

The OCC's new regulations permitting the organization of operating subsidiaries may prove to be a significant decision in the development of opportunities for depository institutions to develop and introduce electronic money in the marketplace. The new rule, issued in November, 1996, expands the scope of activities for national bank operating subsidiaries. Under the new rules, operating subsidiaries may engage in the business of banking and all activities incidental thereto including activities that the parent bank would be prevented from conducting.<sup>259</sup>

While the national banks have used the operating subsidiary to structure their entry into the electronic money marketplace, the OCC's recent revision to 12 C.F.R. part 7 (Regulation 7.1019) provides

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254. Olaf de Senerpont Domis, *AM. BANKER*, Sept. 5, 1996, at 1.

255. *Id.* See OCC Interpretative Letter No. 737, *Fed. Banking L. Rep. (CCH)* ¶ 81-101, at 90,201 (Aug. 19, 1996) [hereinafter *OCC Interpretative Letter No. 737*].

256. *OCC Interpretative Letter No. 737, supra* note 255, at 90,201.

257. *Id.* The standards announced by the OCC for evaluating proposals to make a minority investment in an enterprise are: "(1) the activities of the enterprise in which the bank invests must be limited to activities that are part of or incidental to the business of banking; (2) the bank must be able to prevent the enterprise from engaging in activities that do not meet the foregoing standard, or be able to withdraw its investment; (3) the bank's loss exposure must be limited, as a legal and accounting matter, and the bank must not have open-ended liability for the obligations of the enterprise; and (4) the investment must be convenient or useful to the bank in carrying out its business and not a mere passive investment unrelated to that bank's banking business." *Id.* at 90,203.

258. *OCC Interpretative Letter No. 737, supra* note 255, at 90,207.

259. See *OCC Memorandum, Legal Authority for Operating Subsidiaries*, [Current Transfer Binder] *Fed. Banking L. Rep. (CCH)* ¶ 90-464, at 95,883 (Dec. 20, 1996). See also *supra* note 251.

the basis for the OCC's recent decisions allowing national banks to use technology in the delivery of banking products.<sup>260</sup> Prior to the revision, 12 C.F.R. part 7 authorized banks to utilize data processing equipment to analyze financial data for itself and others. Recognizing the rapid technological developments, the OCC expanded the scope of 12 C.F.R. part 7 to govern the "activities, functions, products and services provided [by banks] via electronic means and facilities."<sup>261</sup> With this change the OCC changed its focus from whether the use of the technology is permissible to a focus on the activity conducted with the new technology.<sup>262</sup>

Since the revision to 12 C.F.R. part 7, the OCC has issued several interpretive letters based on the regulation. In the first interpretive letter, the OCC confirmed a bank's ability to enter into a contractual relationship for the implementation of an electronic toll collection system.<sup>263</sup> In the second letter, the OCC confirmed that a national bank could provide electronic data interchange services, including electronic fund transfers.<sup>264</sup> In evaluating both requests, the OCC considered whether the proposed activity was within the "business of banking," by evaluating 1) whether the activity was "functionally equivalent" to or a "logical outgrowth" of a recognized banking activity; 2) whether the activity would "respond to customer needs or otherwise benefit the bank or its customers;" and 3) whether the activity "involve[s] risks similar in nature to those already assumed by banks." Thus, in each instance the OCC focused on the activity rather than the mechanism the bank intended to use to engage in the activity.<sup>265</sup>

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260. *Furnishing of Products and Services by Electronic Means and Facilities*, 61 Fed. Reg. 4,853, 4,853 (1996) (to be codified at 12 C.F.R. at 7,1019).

261. *Id.* Specifically, the revised regulation titled "Furnishing of Products and Services by Electronic Means and Facilities" provides:

A national bank may perform, provide, or deliver through electronic means and facilities any activity, function, product or service that is otherwise unauthorized to perform, provide or deliver. A national bank may also, in order to optimize the use of the bank's resources, market and sell to third parties electronic capacities acquired or developed by the bank in good faith for banking purposes.

*Id.* at 4,865.

262. The revised regulation presents several interpretative questions including whether the new focus on the banking activity means that the scope of activities that may be conducted "through electronic means and facilities" is expanded. Ellen d'Alelio, *Optimizing the Use of the Bank's "Electronic Capacities": The OCC's Revised Interpretative Ruling*, 1 ELEC. BANKING L. & COM. REP. 2, 4 (1996). Likewise, the definitions of "excess" and "developed in good faith" must be defined by the OCC.

263. OCC Interpretative Letter No. 731, [1995-96 Transfer Binder] Fed. Banking Law Rep. (CCH) ¶ 81,048, at 90,139 (July 1, 1996).

264. OCC Interpretative Letter No. 732, [1995-96 Transfer Binder] Fed. Banking Law Rep. (CCH) ¶ 81,049, at 90,343 (May 10, 1996).

265. OCC Interpretative Letter No. 731, [1995-96 Transfer Binder] Fed. Banking Law Rep. (CCH) at 90,341; OCC Interpretative Letter No. 732, [1995-96 Transfer Binder] Fed. Banking Law Rep. (CCH) at 90,344.

In addition to the reconsideration of the authority of national banks to use technology to deliver traditional bank services, the OCC has used the incidental powers language in section 24 (Seventh) of the National Banking Act to expand the scope of technology related activities by national banks. Specifically, the OCC recently approved a request to sell Internet access to individuals in the national bank's community.<sup>266</sup> Conducting an analysis under section 24 (Seventh) of the National Banking Act, the OCC reasoned that selling Internet access to the public was a part of the "business of banking" because (1) the activity would allow the bank to provide more convenient service to its customers; (2) full Internet access was needed for the bank to market its electronic banking service; and (3) the computer hardware purchased by the bank had extra capacity which the OCC has historically allowed a bank to use profitably.<sup>267</sup> In addition, the OCC reasoned that providing the Internet access was incidental to the business of banking because the OCC has historically allowed national banks to use excess capacity to promote services.<sup>268</sup> These rulings confirm the OCC's intent to permit national banks to devise a variety of methods to make use of the new technologies.

Obviously, one of the potential uses of the new technologies is the creation of an electronic payment system. The OCC has considered the potential impact of the electronic payment systems, including stored value card systems, on national banks. In September, 1996, the OCC issued a bulletin outlining the risks banks may incur with the development of stored value card systems.<sup>269</sup> The bulletin does not establish any specific rules, but contains information about the developing types of stored value systems and the risks associated with the various arrangements. The OCC specifically states that the bulletin is intended to help national banks "make informed decisions about whether and how to become involved" in stored value card systems.<sup>270</sup> The bulletin identifies six different roles a national bank may assume in a stored value card system.<sup>271</sup> For each role, the OCC outlined the potential for transactional, interest rate, credit, liquidity and foreign exchange risk for the institution. Recognizing that current law does

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266. Olaf de Sonepont Domis, *AM. BANKER*, Sept. 5, 1996, at 1. Commenting on this approval, Comptroller Eugene A. Ludwig stated: "We have a long-standing precedent of allowing banks to use the excess capacity of their physical facilities, and this ruling translates those old precedents into the technology world." *Id.*

267. OCC Interpretative Letter No. 742, [Current Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 81,106, at 90,215-90,220 (August 19, 1996).

268. *Id.* at 90,220.

269. *OCC Banking Bulletin No. 96-48*, available at <<http://www.occ.treas.gov/FTP/bulletin/96-48.txt>>.

270. *Id.*

271. *Id.* The six different roles include:

not provide clear rules for the allocation of these risks, the OCC emphasized the need for national banks to establish contractual rules for the allocation of various risks. The bulletin also emphasizes the need for banks to adequately inform customers of their rights and responsibilities with respect to stored value card products. Citing the work by the Federal Reserve Board and the Federal Deposit Insurance Corporation to establish policies affecting the consumer use of stored value cards, the OCC listed a variety of topics for a national bank to consider for its consumer disclosures for stored value card products.<sup>272</sup> The

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Investing banks: An investing bank that has an equity stake in a stored value system.

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Issuing banks: An issuing bank is the obligor for its electronic cash . . . The issuer takes the proceeds from the sale of electronic cash and invests or holds the proceeds until the electronic cash is presented to the issuers for redemption.

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Distributing banks: Any bank that distributes or sells electronic cash on stored value cards. . . .

\* \* \* \* \*

Redeeming banks: [Any banks that] receive electronic cash from merchants for redemption.

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Clearing and settling banks: [Any bank that transmits] information and funds through a valid payments systems network . . . [as a continuation of] a role they undertook as redeemer for their customers or, alternatively, . . . on behalf of other banks. . . .

\* \* \* \* \*

Transaction archiving banks: [Any bank that maintains] recordkeeping or archiving systems [that] can be used to settle disputes between consumers, merchants, and participating banks . . . [or] the government to investigate suspected crimes.

*Id.*

272. The bulletin states that banks should consider several topics when developing disclosures for consumers, including:

- How to use the card.
- Where and how the consumer can increase the value on the card.
- Whether the electronic cash earns interest, dividends, or any other return.
  - Where, how, and when the electronic cash can be redeemed.
- All fees charged in connection with obtaining or using the card or the electronic cash stored on it.
  - The name of the entity that issues the electronic cash and its obligation to redeem it.
    - Whether the consumer is protected in case of a lost or stolen card.
- Whether the amount of the electronic cash transferred to the card is insured by the FDIC.
  - Where does liability lie if a transaction is not properly consummated.
  - What happens to electronic cash that is abandoned or expires under the terms of the agreement.
    - How consumers can resolve disputes involving electronic cash transactions.

bulletin is the first OCC statement directed specifically at stored value card systems. It offers a concise statement of the potential risks, and thus, identifies factors the OCC will consider in its safety and soundness examination of these activities.

## 2. Federal Deposit Insurance Corporation

In one of the most significant regulatory actions concerning electronic money, the FDIC has issued an opinion concluding that the funds underlying most stored value card systems do not constitute a "deposit" for purposes of the Federal Deposit Insurance Act.<sup>273</sup> Banks, however, may structure a stored value system to create a "deposit" that qualifies for deposit insurance.<sup>274</sup> In this system, cards could be designed to satisfy the requirements of a "deposit" by maintaining funds in the consumer's account until payment is made to a merchant and recording transactions with the card.<sup>275</sup> This system may give rise to privacy and confidentiality concerns. The FDIC's legal opinion is a significant development in the establishment of legal rules for electronic money. While the FDIC's ability to proceed with any further regulatory action pursuant to the legal opinion was stalled by Congress, the FDIC's consideration of the "deposit insurance" issue will shape the development of electronic money systems.

The FDIC has taken another significant step in the establishment of regulations governing electronic banking and electronic money systems with the issuance of its safety and soundness examination procedures.<sup>276</sup> As the first federal banking regulator to issue examination procedures for electronic banking, the FDIC guidelines will institute a procedure for the critical evaluation of bank electronic banking practices and will provide valuable information for the agency's efforts to identify issues where new laws and regulations are necessary. Depending on the sophistication of an institutions' electronic banking activities, the new procedures establish three levels of examination for insured institutions.<sup>277</sup> The examination procedures require an ex-

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\*The circumstances under which information on a consumer's electronic cash transactions may be disclosed to third parties.

*Id.*

273. Federal Deposit Insurance Corporation General Counsel's Opinion No. 8; Stored Value Cards, 61 Fed. Reg. at 40,490.

274. *Id.* at 40,494.

275. *Id.* at 40,497.

276. See FEDERAL DEPOSIT INSURANCE CORPORATION, ELECTRONIC BANKING: SAFETY AND SOUNDNESS EXAMINATION PROCEDURES FOR ELECTRONIC BANKING (January 1997) (on file with the *Creighton Law Review*). See Dean Anason, *FDIC Electronic Banking Rules Revise Safety, Soundness Exam*, AM. BANKER, Jan. 31, 1997, at 2.

277. FEDERAL DEPOSIT INSURANCE CORPORATION, ELECTRONIC BANKING: SAFETY AND SOUNDNESS EXAMINATION PROCEDURES FOR ELECTRONIC BANKING (Jan. 1997). The examiner must determine the level of the examination for a bank after evaluating the

aminer to evaluate six different areas of the bank's electronic banking capabilities, including a review of the bank's planning efforts and deployment of electronic banking systems, a review of the operating policies and procedures for the electronic banking system, a review of the audit procedures for the electronic banking system, a review of the bank's administration of the technical aspects of the operating systems, a review of the contracts the bank has arranged for the electronic banking services and a review of the bank's compliance with current regulations for electronic banking systems. Of the various government offices examining stored value systems, the FDIC's actions with respect to electronic banking and electronic money may have the most immediate impact on the industry. Because its goals are to protect the deposit insurance fund and prevent bank closures, the FDIC's examination procedures will be vital to maintaining the safety and soundness of the banking system.

### 3. *Federal Reserve System*

In addition to its proposed amendment to Regulation E for stored value cards, the Federal Reserve Board has taken other steps which will have an impact on the development of electronic banking and electronic money activities in the United States. However, in contrast to the Federal Reserve Board's decision to play a central role in the development of the ACH system in the 1970s,<sup>278</sup> the Board's recent actions do not endorse any particular technology. Instead, the Federal Reserve Board's actions appear to support the development of new payment methods and other electronic financial services by financial institutions. In addition to its proposed amendments to Regulation E for stored value cards, the Board, relying on section 4(c)(8) of the Bank

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capabilities of the bank's electronic banking program. The Level 1 examination is intended for "simple" information systems. For example, where a bank has simply placed electronic versions of its brochures on the Internet, a Level 1 examination would be conducted. The Level 2 examination is intended for systems where consumers can access and transfer data or files. In contrast, the Level 3 examination procedure is reserved for systems "that enable users to direct or process financial transactions," such as an electronic payment system for purchases on the Internet. *Id.*

278. Remarks by Edward W. Kelly, Jr., Member, Board of Governors of the Federal Reserve System, at the Cyberpayments Conference in Dallas, Texas (June 18, 1996) (on file with the *Creighton Law Review*).

Holding Company Act of 1956,<sup>279</sup> entered recent orders that will facilitate this development.<sup>280</sup>

The Federal Reserve Board's willingness to permit financial institutions to experiment with new technology can be seen in its recent order supporting the Integrion Financial Network ("Integrion"). In a ruling on December 2, 1996, the Federal Reserve Board approved a request by three bank holding companies, subject to the Bank Holding Company Act of 1956, to obtain a voting interest in Integrion, a joint venture organization for the "design, development and operation of a data processing and transmission system" through which banks will offer home banking and other electronic financial services to their customers.<sup>281</sup> Noting that the Federal Reserve Board has historically viewed data processing and transmission services as "closely related to the business of banking," the Federal Reserve Board's order focused on the public benefits which would result from the activity.<sup>282</sup> The Federal Reserve Board viewed the venture's plans to enhance home banking services for consumers and the pooling of the participant's resources in the joint venture as key factors that would benefit consumers.<sup>283</sup>

Earlier action by the Federal Reserve Board to ease the ability of depository institutions to offer new electronic payments methods was reversed by the United States Court of Appeals for the District of Columbia in *Money Station, Inc. v. Board of Governors of the Federal Reserve System*.<sup>284</sup> In its decision, the court vacated a March 1, 1995, order by the Federal Reserve Board authorizing several bank holding

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279. 12 U.S.C. § 1843(4)(c)(8) (1994). Section 4(c)(8) of the Bank Holding Company Act of 1956 authorizes bank holding companies to engage in non-banking activities provided the activity is "closely related to the business of banking" and provided the activity will "produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflict of interests, or unsound banking practices." *Id.*

280. Other actions taken by the Board of Governors for the Federal Reserve System include the formation of a task force, referred to as the Financial Services Research Group, to "study national payment and policy issues from economic, technical and regulatory standpoints." Steven Marjanovic, *Fed Task Force to Study Electronic Payment Systems*, AM. BANKER, Febr. 26, 1996, at 16. In addition, in October 1996, the Federal Reserve Board created a committee to conduct a review of the "central bank's check processing and automated clearinghouse operations." The review was initiated after the General Accounting Office criticized the Federal Reserve for lack of a long-range strategic plan for payments systems. Jaret Seiberg, *Fed to Review its Payment Processing*, AM. BANKER, Oct. 18, 1996, at 2. The Federal Reserve has also indicated that it will investigate the impact of price changes for its Fedwire payment system on the use of the system. Marjanovic, AM. BANKER, Feb. 26, 1996, at 16.

281. *See supra* note 52.

282. *See supra* note 52. *See also* 12 C.F.R. § 225.25(b)(7) (1996).

283. *See supra* note 52.

284. 81 F.3d 1128 (D.C. Cir. 1996).

companies to increase their ownership interest in an entity seeking to expand into the payment alternatives market. In a five to one decision, the Federal Reserve Board approved the applications, under section 4(c)(8) of the Bank Holding Company Act of 1956, by Banc One Corp, CoreStates Financial Corp., PNC Bank Corp, KeyCorp and National City Corporation to increase or obtain an equity interest in Electronic Payment Services, Inc. ("EPS").<sup>285</sup> The court rejected the Federal Reserve Board's conclusion that the public benefits of the transaction outweighed the possible adverse effects. The Federal Reserve Board had concluded that the increased research and development funds supplied by the investments would enable Electronic Payment Services to speed the introduction of innovative and quality payment products in the marketplace.<sup>286</sup>

In its decision vacating the order, the court held that the Federal Reserve Board failed to articulate a "satisfactory explanation" of the nexus between the additional capital investments by the bank holding companies and the public benefits identified by the Federal Reserve Board.<sup>287</sup> The court noted that the Federal Reserve Board acknowledged the difficulty of determining whether the additional capital would speed the development of the product.<sup>288</sup> The court also noted the Federal Reserve Board's failure to analyze EPS's ability to produce the same public benefits absent the investment by the bank holding companies.<sup>289</sup> Given these factors, the court held that the matter must be remanded for a hearing.<sup>290</sup> Nevertheless, these actions illustrate that, like other federal banking regulators, the Federal Reserve Board is seeking to increase the opportunities for banks and bank holding companies to develop electronic payment systems.

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285. *Orders Issued Under Section 4 of the Bank Holding Company Act*, 81 FED. RES. BULL. 491, 491-92 (1995). Specifically, KeyCorp sought to increase its ownership interest in Electronic Payment Services while National City Corporation and Mellon Bank Corporation sought permission to make equity investments in Electronic Payment Services. Mellon Bank Corporation later withdrew its application.

286. *Id.* at 498.

287. *Money Station, Inc. v. Board of Governors of the Federal Reserve System*, 81 F.3d 1128, 1134-35 (D.C. Cir. 1996) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) as requiring the agency to "articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.").

288. *Money Station*, 81 F.3d at 1135.

289. *Id.*

290. *Id.* at 1138. In his dissent, Judge Harry T. Edwards rejected the majority's conclusion that the record was incomplete and maintained that the court was simply reweighing the evidence presented to the Board. *Id.* at 1138-46 (Edwards, J., dissenting).

## B. CONGRESSIONAL ACTION

Congress is now turning its attention to electronic money and banking issues. Representative Henry Gonzalez issued a report in October, 1996, outlining the steps he recommends for Congress to take at this time.<sup>291</sup> The report urges a prompt review of current consumer protection laws to ensure that consumers will be protected as financial information is transmitted electronically.<sup>292</sup> At the heart of the report is a proposal to subject banks and nonbanks to the same laws for any transaction involving the exchange of financial information or cash and for the law to contain disclosure requirements which advise consumers about “the procedures for resolving disputes and errors, and what happens if the product is lost, expires, or can’t be used because of computer problems.”<sup>293</sup>

Representative Gonzalez’s report is one of several efforts by the 104th Congress to study the development of electronic payment systems and the delivery of other financial services electronically. One of the most noted efforts was a series of four hearings conducted by the Domestic and International Monetary Policy subcommittee of the House Banking and Financial Services Committee on payment technology in 1995 and 1996. The hearings, titled “The Future of Money,” provided a forum for bankers, nonbank financial institutions, trade groups and consumer groups to explain the developments and comment on the implications of the evolving payment technology.<sup>294</sup>

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291. Celia Viggo Wexler, *Gonzales Pushing Consumer Safeguards for Electronic Banking*, AM. BANKER, Oct. 24, 1996, at 2.

292. *Id.*

293. *Id.* The report, titled “Connecting Consumers: Consumer Issues and Emerging Financial Technology” contains five specific recommendations for the next congressional session, including:

- (1) Adopt public policy standards relating to privacy, disclosure, access, equity, and financial reliability for electronic banking products and services.
- (2) Hold oversight hearings to assess how well the industry is serving the consumer in these five areas.
- (3) Enact laws if the industry’s performance falls below minimum congressional standards.
- (4) Define financial transactions to include the exchange of financial information as well as cash.
- (5) Consider revising current consumer protection laws.

*Id.*

294. As stated by Representative Michael Castle (R-Del) at the beginning of the hearings: “It is incumbent on Congress and the Executive Branch Agencies, including law enforcement, to try to understand these technological innovations and the implications they hold for our future.” *Statement by Chairman Michael N. Castle, the Future of Money Hearing—October 11, 1995, 10:00 a.m. Room 2128 Rayburn House Office Building* (visited March 5, 1997) <<http://www.house.gov/castle/banking/castle2.htm>>. The series of hearings included an overview of new electronic payments systems and a discussion on the public policy implications in a number of areas, including law enforcement, consumer protections, taxes, and the implications for electronic commerce in both domestic and international markets. *The Future of Money Hearings: Part I, Hearings*

Throughout the hearings, participants asserted that the electronic money systems and electronic banking should be free to develop without significant government intervention.

Congress considered proposals for specific legislation concerning electronic money during 1995 and 1996.<sup>295</sup> At the end of 1996, Congress approved legislation prohibiting any further action by the Federal Reserve Board on its proposed revisions to Regulation E and requiring the Federal Reserve to conduct a study on electronic money. The legislation requires the Federal Reserve to present its study to Congress by March 31, 1997. With this legislation in place, the Federal Reserve may not finalize its proposed amendments to Regulation E for stored value cards until three months after the completion of its study or three months after the enactment of the law. While the Congressional moratorium on the Regulation E amendments seems to add to the uncertain legal environment, the study by the Federal Reserve, as well as an earlier study by the Congressional Budget Office,<sup>296</sup> should provide a solid basis for the examination of electronic money issues by Congress.

#### IV. THE FUTURE OF ELECTRONIC MONEY REGULATION—A PROPOSAL

The regulation of electronic money will continue to evolve as technological developments bring new innovations to the financial marketplace. While it is difficult to predict the speed with which customers will adapt to electronic money, whether in the form of a smart card or digital note placed on a computer chip, it is clear that an alternative payment method would facilitate business transactions in a world where geographic boundaries are becoming insignificant.

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*Before the Subcommittee on Domestic and International Monetary Policy, 104th Cong., 1st Sess. (July 25, 1995); The Future of Money Hearings: Part II, Hearings Before the Subcommittee on Domestic and International Monetary Policy, 104th Cong., 1st Sess. (Oct. 11, 1995); The Future of Money Hearings: Part III, Hearings Before the Subcommittee on Domestic and International Monetary Policy, 104th Cong., 2nd Sess. (Mar. 7, 1996); The Future of Money Hearings: Part IV, Hearings Before the Subcommittee on Domestic and International Monetary Policy, 104th Cong., 2d Sess. (June 11, 1996) (a transcript of these hearings is available at <<http://www.house.gov/banking>>).*

295. See, e.g., H.R., 1858, § 143(a) (proposing an amendment to the Electronic Funds Transfer Act to exclude smart cards and other stored value devices from the definition of the term "access device.")

296. United States Congressional Budget Office, *Emerging Electronic Methods for Making Retail Payments* (June 1996), available in LEXIS, Banking Library, Lxbank File. This study contains a detailed overview of the new retail payment mechanisms and a summary of the major policy implications for electronic money, including reserve requirements, deposit insurance coverage, liability for unauthorized use, privacy, and monetary policy.

Historically, banks in the United States have been subject to a complex and detailed set of regulations. Although some suggest that banking regulations have prevented the development of an efficient and competitive financial industry, most agree that banking regulations must attempt to maintain a stable banking system by protecting depositors against the risk of bank failure and preventing interruptions to the payment system.<sup>297</sup> The regulatory scheme for electronic money and other forms of electronic financial products must also provide consumer protections and ensure the safety and soundness of the banking industry. Indeed, the regulatory scheme for electronic money should focus on the development of appropriate customer disclosures and the regulation of all entities providing electronic payment systems.

Consumer confidence is a key objective for the regulation of electronic money systems. Accordingly, laws and regulations for electronic money systems must contain elements that will increase consumer confidence and trust. The Office of the Comptroller of the Currency has outlined several types of information that should be disclosed to consumers in an effort to secure consumer confidence in stored value cards and other types of electronic payments systems.<sup>298</sup> Obviously, clear statements to the consumer about the absence of deposit insurance will be required for all stored value cards and other electronic payment systems. Consumer information about other issues that will arise in the use of electronic payment systems will also help to instill consumer confidence in a paperless system. New federal regulations requiring a set of minimum disclosures would facilitate the industry in creating electronic payments systems. Consideration of various consumer protection measures should not impede the development of electronic money systems. Rather, if such measures are considered at the outset, consumers may be attracted to the systems earlier and in greater numbers than anticipated.

Likewise, in light of the variety of organizations that are offering electronic payment products, consideration must be given to extending the scope of regulatory oversight to nonbank organizations offering electronic payment products. The OCC has taken the first step in this regard through its new excess capacity and operating subsidiary regulations.<sup>299</sup> The new regulations may impact the development of electronic payment systems by increasing the likelihood that banks will serve as the primary organization for offering electronic payment sys-

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297. See generally David G. Oedel, *Puzzling Banking Law: Its Effects and Purposes*, 67 U. COLO. L. REV. 477 (1996); Jonathon R. Macey & Geoffrey P. Miller, *Nondeposit Deposits and the Future of Bank Regulation*, 91 MICH. L. REV. 237 (1992).

298. See *supra* notes 271-72 and accompanying text.

299. See *supra* notes 249-59 and accompanying text.

tems to consumers. Pursuant to these regulations, if the electronic payment activity is conducted in the bank or its operating subsidiary, federal banking regulators could conduct periodic evaluations of the safety and soundness of the activity. Other links between nonbank issuers and processors of electronic money and federal banking regulators should be established. For example, regulations requiring registration and periodic reporting by non-bank entities offering electronic payments systems and consumer protection regulations would be instrumental in maintaining the safety and soundness of the payment system.

## V. CONCLUSION

In the current deregulatory environment, the federal banking regulators seem willing to allow the participants in electronic money ventures to structure products without significant governmental intervention. The actions by the Office of the Comptroller of the Currency, to revise its regulation governing the use of excess electronic capacity and its promulgation of the new operating subsidiary regulation, illustrate the OCC's willingness to promote the entry of national banks into electronic money ventures. Similar rulings by the Federal Reserve Board and the Federal Deposit Insurance Corporation represent a willingness to allow the marketplace to experiment with the new payments systems while limiting their regulatory powers on an evaluation of the safety and soundness of the institution.<sup>300</sup>

The development of electronic payments systems will bring a variety of benefits for both financial institutions and consumers. However, with the reduction of costs, increased convenience, and mechanisms for greater security, electronic payment systems will also bring new abuses and costs for financial institutions, merchants and consumers. The recent agency actions have taken initial steps to reduce the risks associated with electronic payment systems and to construct a mechanism for evaluating the safety and soundness of these new activities. While federal banking regulators have taken important steps to reduce the legal uncertainty surrounding the offering of electronic money systems, many significant issues remain to be resolved. In the coming months, the future development of electronic payment systems will be aided by the structure the federal banking regulators have provided to this developing market. If stronger steps are taken at this time to strengthen consumer protections and to maintain the integrity of the payment system, more expensive corrective action may be avoided in the future.

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300. See *supra* notes 273-90 and accompanying text.