

## ELECTRONIC COMMERCE SYMPOSIUM

# THE NEW MONEY

By Kerry Lynn Macintosh<sup>†</sup>

### ABSTRACT

Professor Macintosh analyzes the strategic advantages and disadvantages of credit cards for buyers and sellers. She concludes that Internet commerce needs electronic money in order to achieve its full potential. Professor Macintosh further reasons that the Internet needs “global electronic currencies” that can serve as universal media of exchange, global units of account, and stable stores of value. However, burdensome laws and regulations could delay, or even preclude, the emergence of electronic money. Professor Macintosh concludes that federal regulations and uniform state laws designed to combat money laundering should not apply to electronic payment products. Also, Congress and the state legislatures should work to repeal outdated laws that stand in the way of electronic money.

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### I. INTRODUCTION

Nearly two years ago, the Clinton Administration issued *A Framework for Global Electronic Commerce*.<sup>1</sup> The Framework is one of the most

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1. WILLIAM J. CLINTON & ALBERT GORE, JR., A FRAMEWORK FOR GLOBAL ELECTRONIC COMMERCE § 3 (1997) available at <<http://www.iitf.nist.gov/eleccomm/ecommm.htm>> (hereinafter FRAMEWORK).

radical political documents of this century—not for what it committed government to do, but for what it committed government *not* to do.

The Framework established five basic principles to guide development of Internet commerce. First, the private sector should lead.<sup>2</sup> Second, governments should avoid undue restrictions that might distort development of the electronic marketplace.<sup>3</sup> Third, government should work to foster a legal environment that is predictable, consistent, and minimalist.<sup>4</sup> Fourth, governments should recognize that the Internet is unique, and requires new policies.<sup>5</sup> Fifth, electronic commerce should be facilitated on a global basis.<sup>6</sup>

The Framework identified electronic payment systems as a key element of global electronic commerce.<sup>7</sup> It recognized that, at this early stage in the development of electronic payment systems, the commercial and technological environment was changing quickly, making it hard to develop timely and appropriate policy.<sup>8</sup> For these reasons, the Framework concluded, inflexible and highly prescriptive regulations and rules would be inappropriate and potentially harmful.<sup>9</sup> Instead, electronic payment experiments should be monitored on a case-by-case basis.<sup>10</sup>

Since the Framework was released, Internet commerce has increased rapidly in volume, and is projected to be hundreds of billions of dollars by the start of the twenty-first century.<sup>11</sup> Because sales cannot go forward without payments, the development of electronic payment systems has emerged as a top priority for innovators and policymakers in the new millennium.

Thus far, credit cards have emerged as the most popular method of payment over the Internet.<sup>12</sup> Consumers send their card numbers over the

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2. *See id.* at Principles.

3. *See id.*

4. *See id.*

5. *See id.*

6. *See id.*

7. *See* FRAMEWORK, *supra* note 1, § I.2.

8. *See id.*

9. *See id.*

10. *See id.*

11. *See* U.S. GOV'T WORKING GROUP ON ELEC. COMMERCE, FIRST ANNUAL REPORT 1 (Nov. 1998) [hereinafter FIRST ANNUAL REPORT].

12. *See* Peter Wayner, *Electronic Cash for the Net Fails to Catch On*, N.Y. TIMES ON THE WEB, Nov. 28, 1998 (visited April 17, 1999) <<http://www.nytimes.com/library/tech/98/11/cyber/articles/28cash.html>>.

phone lines, apparently confident that existing encryption protocols are sufficient to protect them against theft and fraud.<sup>13</sup>

Meanwhile, competing electronic payment systems are struggling to survive. DigiCash, Inc. is known as the company that developed eCash, a system for making anonymous electronic payments using digital "coins."<sup>14</sup> However, the idea failed to catch on, and DigiCash petitioned for Chapter 11 reorganization in November 1998.<sup>15</sup> Smart cards have not fared much better.<sup>16</sup> Recently, Citibank and Chase Manhattan ended a smart card pilot program operating in the Upper West Side of Manhattan due to a lukewarm response from the public.<sup>17</sup>

In this essay, I consider three questions. First, does global electronic commerce need electronic payment systems other than credit cards? Second, if so, what are the characteristics of these systems? Third, what, if anything, can government do to promote the emergence of the necessary systems?

## II. CREDIT CARDS ARE NOT ENOUGH

Internet buyers seem to prefer credit cards to other electronic payment systems that have been made available to them.<sup>18</sup> Why?

One reason may be simple familiarity. Internet commerce is still new and intimidating to many. It is easier for buyers to make purchases on the

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13. *See id.*

14. *See* David Einstein, *Day Early, Dollar Short—DigiCash Files Chapter 11*, S.F. CHRON., Nov. 6, 1998, at B1-2. Under the DigiCash system, a customer uses her computer to generate a random serial number. The number serves as a digital "coin," and has a dollar value associated with it. The customer submits the coin to her bank, which adds its digital signature, and debits her account. The customer now holds an electronic bank obligation, which she can transmit anonymously as payment for online goods or services. The merchant who receives the coin contacts the issuing bank to verify that it has not been spent before. If the coin is still good, the merchant deposits it in his own bank. *See* Kerry Lynn Macintosh, *How to Encourage Global Electronic Commerce: The Case for Private Currencies on the Internet*, 11 HARV. J.L. & TECH. 733, 735 n.9 (1998).

15. *See* Einstein, *supra* note 14, at B1.

16. A smart card is a plastic card with an embedded computer chip. The chip is loaded with value. To purchase goods or services, a buyer takes the card to a store equipped with a card-reading terminal. After the sale is complete, the store submits the value to the card issuer for redemption. *See* CONGRESSIONAL BUDGET OFFICE, EMERGING ELECTRONIC METHODS FOR MAKING RETAIL PAYMENTS 9-11 (1996); Macintosh, *supra* note 14, at 734.

17. *See* Saul Hansell, *Got a Dime? Citibank and Chase End Test of Electronic Cash*, N. Y. TIMES, Nov. 4, 1998, at C1.

18. *See* Wayner, *supra* note 12.

Internet when they can use a familiar payment method, like the credit card. As time passes, buyers should become more comfortable with Internet commerce. Innovative payment products, such as smart cards and electronic money, should become more familiar to them.

Even then, however, Internet buyers may continue to prefer credit cards, particularly when making expensive purchases. This is because credit cards offer strategic advantages to buyers in general. Consider these two points:

- 1) Every use of a credit card involves a loan to the buyer. This enables her to buy more than she earns. The loan may even be interest-free, if she pays her account off every month. By contrast, if she holds electronic money, she is, in effect, making an interest-free loan to the company that issues the money.<sup>19</sup>
- 2) If a credit card purchase goes sour, a buyer often can avoid loss by asserting her claims or defenses on the purchase against the issuer of the card.<sup>20</sup> By contrast, once spent, cash cannot be recovered.<sup>21</sup> Similarly, a cashier's check—long recognized as a substitute for cash—cannot easily be stopped.<sup>22</sup> Electronic money that functions like cash or cashier's checks may face similar constraints.<sup>23</sup>

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19. Smart cards loaded with value, eCash, and similar products are not legal tender; rather, they represent claims against the issuer. *See* Task Force on Stored-Value Cards, *A Commercial Lawyer's Take on the Electronic Purse: An Analysis of Commercial Law Issues Associated with Stored-Value Cards and Electronic Money*, 52 *Bus. Law.* 653, 670 (1997). In effect, the temporal gap between creation of value and redemption of value involves an extension of credit by the issuer. *See id.* at 664.

20. For example, under federal law, the issuer of a bank credit card or convenience card (like American Express) is subject to claims and defenses arising out of a credit card transaction, if: (1) the cardholder makes a good faith effort to resolve her dispute with the merchant; (2) the amount of the transaction exceeds \$50; and (3) the place where the transaction occurred is in the same state or within 100 miles from the cardholder's residence. *See* 15 U.S.C. § 1666(i) (1998); 2 BARKLEY CLARK & BARBARA CLARK, *THE LAW OF BANK DEPOSITS, COLLECTIONS, AND CREDIT CARDS* ¶ 15.07[2] (rev. ed. 1999). Liability is limited to the amount of credit outstanding on the transaction when the cardholder first notifies the issuer of the claim or defense. *See id.* When the seller has issued the credit card, or is under the control of the issuer, or is a franchised dealer, the cardholder can assert her claims or defenses without regard to dollar amount or geographic location. *See id.*

21. *See, e.g., Miller v. Race*, 97 Eng. Rep. 398 (K.B. 1758) (money cannot be recovered once paid honestly upon a valuable consideration).

22. Issuing banks prefer to honor their cashier's checks in order to protect their own credit reputations. The Uniform Commercial Code reinforces this strong self-interest.

However, buyers are only one side of the coin. For *sellers*, credit cards have the following strategic disadvantages:

- 1) Unlike cash or cash equivalents, credit card charges are subject to percentage fees.<sup>24</sup> These charges erode profit margins, particularly on inexpensive goods and services.
- 2) As explained above, a buyer who uses a credit card may refuse to pay the issuer on the grounds that she has a claim or defense arising out of the underlying transaction.<sup>25</sup> When this happens, the issuer may pass the loss back to the seller.<sup>26</sup>
- 3) Enrolling in the credit card system requires establishing a relationship with a depository bank, including the signing of a complex commercial agreement.<sup>27</sup>

The reason Internet buyers are able to insist on credit card use is because they enjoy a bargaining advantage over online sellers—at least for now. The current success of Internet commerce depends on large numbers of consumers, and therefore they must be coaxed into online purchasing. But this state of affairs is not likely to last long. Electronic commerce will continue its explosive growth. More and more buyers will want to participate. Meanwhile, a larger and more diverse complement of sellers will move online. Consumers will sell goods or services to other consumers. Hobbyists will market digital crafts. Retirees will offer consulting services.

As the cybermarket matures and diversifies, the balance of bargaining power will shift. Internet sellers who offer low-cost products will not want

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Banks that wrongfully refuse to honor their own cashier's checks can be sued for expenses, loss of interest, and consequential damages. *See* U.C.C. § 3-411(b) (1995).

23. For example, some lawyers believe courts would treat smart cards as cash, and refuse to permit stop payment. This is likely in systems where value cannot be linked to an individual after payment has been made. *See* Task Force on Stored-Value Cards, *supra* note 19, at 720. To avoid uncertainty, issuers may choose to address such legal problems through contracts or system rules. *See id.*

24. Banks that process credit card slips for sellers charge a percentage fee known as the "discount rate." The discount rate ranges from one-half to seven percent of the amount of the credit card slip. *See* 2 CLARK & CLARK, *supra* note 20, ¶ 15.02.

25. *See supra* note 20 and accompanying text.

26. The issuer may charge the amount of the purchase back to the seller's bank, which, in turn, may charge back against the seller pursuant to a recourse agreement. *See* 2 CLARK & CLARK, *supra* note 20, ¶ 15.02[4][b].

27. For an overview of terms included in bank-merchant agreements, *see id.*

to pay percentage fees. Those who transmit information goods or services electronically may not want to accept the risk that buyers might reverse the charges later. Consumers and others who make only occasional sales may not be willing or able to enroll in the credit card system.

Thus, it is much too early to conclude Internet commerce can—or should—rely primarily on credit cards. Soon, Internet sellers who do not like the cost or risk associated with credit cards will demand money from buyers, just as sellers in real space often do. When that happens, the market will need electronic currencies that can circulate from computer to computer, around the world.<sup>28</sup>

### III. THE INTERNET NEEDS GLOBAL ELECTRONIC CURRENCIES

If global electronic commerce does need additional electronic payment systems, what should the characteristics of those systems be? I have previously argued that the Internet needs “global electronic currencies”—that is, currencies that are privately issued, managed, and denominated.<sup>29</sup> Companies that issue such currencies will compete with each other for the business of Internet buyers and sellers.<sup>30</sup> Only currencies with stable value and wide acceptance in the marketplace will survive.<sup>31</sup>

Global electronic currencies will benefit Internet commerce in three ways. First, the currencies can serve as universal *media of exchange*. Once a user acquires a global electronic currency, she can enter into transactions around the world without having to pay exchange fees.<sup>32</sup> Second, the currencies will provide global *units of account*, enabling buyers and sellers all over the world to understand what goods and services are worth without calculation.<sup>33</sup> Third, and perhaps most importantly, global electronic cur-

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28. This is not a technological pipe dream. Mondex Co. possesses technology that permits users to transmit stored value directly from smart card to smart card. Other companies have developed smart card readers for computers. With such readers in place, electronic money could move online. See generally Karen Kaplan, *E-commerce may help Americans learn to love 'smart' cards*, L.A. TIMES, Oct. 11, 1998, at C1.

29. See Macintosh, *supra* note 14, at 738-39.

30. See *id.* at 750.

31. See *id.*

32. See *id.* at 756-57.

33. See *id.* at 758. Some may question the utility of common units of account, arguing that computer software could be developed to translate any national unit of account into any other national unit of account. However, the transaction costs involved might be higher than expected; the software would have to be constantly updated as exchange rates for over two hundred national currencies fluctuated.

rencies will serve as stable *stores of value*. Competition will drive unstable products out of the market.<sup>34</sup> Unlike national monies, private currencies will not be subject to the inflationary monetary policies of national governments and the special interests they represent.<sup>35</sup>

Some might argue that we could achieve the same advantages with government monies. For example, if the Federal Reserve Board issued its own electronic money, dollars could become the currency for the entire Internet.<sup>36</sup>

However, the Federal Reserve Board does not plan to issue electronic money at this time.<sup>37</sup> More importantly, the Framework reminds us that Internet commerce should be facilitated on a *global* basis. A global marketplace should not depend on the currencies of sovereign nations and the politics and inflationary monetary policies that come along with them.<sup>38</sup> If allowed to lead, the private sector can develop stable electronic currencies

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More importantly, practical experience teaches that common units of account provide informational benefits to users. Prior to introduction of the euro, the price charged for the same goods varied widely between European countries. *See Faster Forward*, THE ECONOMIST, Nov. 28, 1998, at 83. An investment bank studied fifty-three homogeneous goods across Europe and found that on average, prices differed from the mean by twenty-four percent—a variation twice as large as in the United States. *See id.* This variation was due in part to price opacity. Even when exchange rates were steady, comparing prices stated in differing national currencies was not easy for consumers. *See id.*

On January 1, 1999, Europe entered a new era. Two hundred and ninety million people in eleven countries adopted a common currency, known as the euro. *See Anu Mahmud, Birth of Euro: Impact on Economy*, HONG KONG STANDARD, Jan. 27, 1999. The new unit of account introduced price transparency, allowing buyers to comparison-shop freely across Europe. As experts had predicted, *see Faster Forward, supra*, the introduction of the euro revealed that some prices were out of line, and brought prices down. *See Charles Fleming, The Euro's Arrival Leads One Firm to Cut its Prices*, WALL ST. J. EUR., Jan. 28, 1999, at 13.

34. *See Macintosh, supra* note 14, at 762.

35. *See id.* at 763-64.

36. *See Joshua B. Konvisser, Note, Coins, Notes, and Bits: The Case for Legal Tender on the Internet*, 10 HARV. J.L. & TECH. 321 (1997).

37. Apparently, the Fed fears that direct competition between the government and private sector could stifle the current environment of experimentation and innovation. *See Hearing Before the House Comm. on the Judiciary*, 105th Cong. 619 (June 3, 1998) (statement of Laurence H. Meyer, Member, Board of Governors of the Federal Reserve System).

38. National governments can print large amounts of money to cover deficits, reduce unemployment, or to redistribute income and wealth between creditors and debtors. *See Lewis D. Solomon, Local Currency: A Legal & Policy Analysis*, 5 KAN. J.L. & PUB. POL'Y 59, 66 (1996). Of course, such action results in inflation. *See id.*

that are free of political entanglements and offer the benefits of universal media of exchange, global units of account, and stores of value.<sup>39</sup>

#### IV. HOW CAN WE FREE UP THE SYSTEM?

The last of my three questions is the most important for policymakers. What, if anything, can government do to encourage private companies to develop global electronic currencies, or other electronic payment systems for the Internet?

In November 1998, the U.S. Government Working Group on Electronic Commerce issued its First Annual Report on progress made in achieving the goals stated in the Framework.<sup>40</sup> In the pages that follow, I offer some constructive advice for the Working Group in three areas: proposed federal regulations, uniform law projects, and outdated federal and state laws.

##### A. Federal regulations

The Framework calls upon regulators to refrain from imposing "inflexible and highly prescriptive regulations and rules" that could inhibit the development of new systems for electronic payment.<sup>41</sup>

To a remarkable extent, the federal government has heeded this call. The Federal Reserve Board has declined to extend Regulation E<sup>42</sup> to electronic stored value products.<sup>43</sup> As a result, the development of consumer protection policy for electronic stored-value products has been left to the marketplace. Similarly, the Consumer Electronic Payments Task Force has declined to recommend specific regulations for electronic payment systems, recommending instead that market participants develop policies and

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39. See Macintosh, *supra* note 14, at 761-64.

40. See *supra* note 11.

41. See FRAMEWORK, *supra* note 1, at Part I.2.

42. The Electronic Fund Transfer Act, 15 U.S.C. §§ 1693-1693r (1998), regulates electronic fund transfers involving consumers. Regulation E implements the Act. See 12 C.F.R. § 205 (1999).

43. See BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, REPORT TO THE CONGRESS ON THE APPLICATION OF THE ELECTRONIC FUND TRANSFER ACT TO ELECTRONIC STORED-VALUE PRODUCTS (1997), available at <[http://www.bog.frb.fed.us/boarddocs/RptCongress/efta\\_rpt.pdf](http://www.bog.frb.fed.us/boarddocs/RptCongress/efta_rpt.pdf)>. This report does not recommend any specific course of action. However, it concedes that benefits to consumers might not outweigh the costs of applying Regulation E to electronic stored value products. See *id.* at 75.



procedures to address areas of consumer concern.<sup>44</sup> According to the Task Force, government should limit its role to providing consumer financial education, monitoring industry developments, and encouraging industry to self-regulate.<sup>45</sup>

Unfortunately, however, there is one federal agency that has resisted the call to laissez-faire. Pursuant to the Money Laundering Suppression Act of 1994 ("MLSA"), Congress amended the Bank Secrecy Act ("BSA") to require any business engaging in money transmitting services to register with the Financial Enforcement Network ("FinCEN") of the U.S. Department of the Treasury.<sup>46</sup> To implement this mandate, on May 21, 1997, FinCEN issued proposed amendments to the BSA regulations.<sup>47</sup> Under the amendments, the term "financial institution" would include "money services business,"<sup>48</sup> which, in turn, would include issuers and sellers of stored value<sup>49</sup> and money transmitters.<sup>50</sup> If adopted, the amendments would eliminate any lingering doubt that those who offer or operate advanced electronic payments systems are subject to the BSA.<sup>51</sup>

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44. See CONSUMER ELECTRONIC PAYMENTS TASK FORCE, REPORT OF THE CONSUMER ELECTRONIC PAYMENTS TASK FORCE 59 (April 1998). In reaching this conclusion, the Task Force voiced its concern that comprehensive new regulation of electronic money could quash competition and innovation, retard the development of a promising new industry, and increase the cost of new products unnecessarily. See *id.* at 59.

45. See *id.* at 59-60.

46. See 31 U.S.C. § 5330(a)(1) (1998); Lee S. Adams & David J. Martz, *Survey: Developments in Stored-Value Cards and Cyberbanking*, 53 BUS. LAW. 1085, 1091 (1998).

47. See Proposed Amendment to the Bank Secrecy Act Regulations, Definition and Registration of Money Services Businesses, 62 Fed. Reg. 27,890 (1997) (to be codified at 31 C.F.R. § 103).

48. See *id.* at 27,897 (to be codified at 31 C.F.R. § 103.11(n)(3)).

49. "Stored value" would include funds or monetary value represented in digital electronics format and stored or capable of storage on electronic media in such a way as to be retrievable and transferable electronically. See *id.* at 27,898 (to be codified at 31 C.F.R. § 103.11(vv)). FinCEN intends this broad term to encompass not only stored value cards, but "other advanced payment system products." See *id.* at 27,893; Linda Noonan, *Many New Businesses May Become Subject to the BSE*, 7 NO. 11 MONEY LAUNDERING L. REP. 1 (1997).

50. See Proposed Amendment to the Bank Secrecy Act Regulations, Definition and Registration of Money Services Businesses, *supra* note 47, at 27,897-98 (to be codified at 31 C.F.R. § 103.11(uu)(3)-(5)).

51. See *id.* at 27,893.

Compliance with the BSA and its regulations is burdensome and expensive.<sup>52</sup> By increasing cost and effort, the proposed amendments could slow—or even stop—the development of global electronic currencies, and other innovative electronic payment products.<sup>53</sup>

Moreover, some regulations and programs could embroil electronic payment systems in political controversy. For example, FinCEN plans to exempt transactions involving stored value and other advanced electronic payment products from suspicious transaction reporting<sup>54</sup>—but not for long. Already, the agency has invited comments about the manner in which suspicious transaction reporting should apply to transactions involving stored value products.<sup>55</sup>

Critics of the proposed regulations have questioned whether stored value is within the scope of the MLSA and its grant of authority to FinCEN.<sup>56</sup> Congress did not discuss stored value when the MLSA was under consideration.<sup>57</sup> Nor was any evidence produced at that time to demonstrate that stored value or similar electronic payment products were being used to launder money.<sup>58</sup>

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52. See Adams & Martz, *supra* note 46, at 1091. For example, financial institutions subject to the BSA must report currency transactions over \$10,000 and keep records on funds transfers over \$3,000. See *id.*

53. See *id.* at 1092; *Uniform Non-Depository Providers of Financial Services Act: Hearing Before the National Conference of Commissioners on Uniform State Laws Drafting Committee* (Oct. 24, 1997) (testimony of Mark E. Plotkin, Partner, Covington & Burling, on Behalf of Mondex USA), available at <<http://www.law.upenn.edu/library/ulc/ndpfsa/plotkin.htm>> [hereinafter Plotkin Testimony].

54. On May 21, 1997, FinCEN published its Proposed Amendment to the Bank Secrecy Act Regulations, Requirement of Money Transmitters and Money Order and Traveler's Check Issuers, Sellers, and Redeemers to Report Suspicious Transactions, 62 Fed. Reg. 27,900 (to be codified at 31 C.F.R. § 103). These proposed amendments would extend to "money services businesses" a suspicious transaction reporting regime that is similar to the one imposed on banks, thrifts, and credit institutions. See *id.* at 27,900-01. However, the amendments would exempt transactions that involve only the issuance or facilitation of transfer of stored value, or the issuance, sale, or redemption of stored value. See *id.* at 27,908 (to be codified at 31 C.F.R. 103.20(a)(4)).

55. See *id.* at 27,904.

56. See, e.g., Plotkin Testimony, *supra* note 53.

57. See *id.*

58. See *id.* Years later, no case of "cyberlaundering" has been detected. See FINANCIAL ACTION TASK FORCE ON MONEY LAUNDERING, 1997-1998 REPORT ON MONEY LAUNDERING TYPOLOGIES, pt. II(ii), New Payment Technologies, at 7 (Feb. 12, 1998), available at <<http://www.ustreas.gov/fincen/typo97en.html>>.

Three years ago, when the Federal Reserve Board first proposed applying Regulation E to electronic stored-value products,<sup>59</sup> Congress required the Fed to study and report on whether Regulation E would adversely impact the cost, development, and operation of such products.<sup>60</sup> Similarly, Congress should direct FinCEN to conduct a more extensive study to determine whether regulation under the BSA could have a harmful impact on the cost, development, and operation of electronic payment systems.<sup>61</sup> Like the Fed, FinCEN should be asked to consider whether allowing competitive market forces to shape the development of electronic payment systems would more efficiently achieve the objectives of the BSA.<sup>62</sup> If the answer is “yes,” then the proposed amendments should not be adopted.

### B. Uniform law projects

Federal regulators are not the only source of “inflexible and highly prescriptive regulations and rules”<sup>63</sup> that could inhibit the development of global electronic currencies. Consider, for example, the Uniform Money Services Business Act (“UMSBA”).<sup>64</sup> Designed to combat money laundering, the UMSBA would subject money services businesses to a complex system of licensing, examination, reporting, and civil and criminal penalties. “Money services business” includes a person who sells, issues, or provides payment instruments,<sup>65</sup> including stored value instruments.<sup>66</sup>

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59. See 61 Fed. Reg. 19,696 (May 2, 1996).

60. See Economic Growth and Regulatory Paperwork Reduction Act of 1996, Pub. L. No. 104-208, § 2601, 110 Stat. at 3009-469.

61. See Noonan, *supra* note 49, at 4-5.

62. See Economic Growth and Regulatory Paperwork Reduction Act of 1996, *supra* note 60. For example, Mondex USA has pledged to impose low limits on the amount of value that may be stored on consumer smart cards. Merchant smart cards will be rendered incapable of transmitting value to anyone other than as a legitimate consumer refund or as a deposit in a bank. Moreover, Mondex will monitor transaction activity in its system, searching for abnormal patterns of behavior. See Plotkin Testimony, *supra* note 53.

63. See generally FRAMEWORK, *supra* note 1, at Part I.2.

64. National Conference of Commissioners on Uniform State Laws, Uniform Money Services Business Act (March 1999), available at <<http://www.law.upenn.edu/library/ulc/moneysrv/msb399.htm>>. In prior drafts, the UMSBA was known as the Uniform Nondepository Providers of Financial Services Act. The name change was adopted on the ground that “money services business” better described the entities regulated under the Act, and was consistent with FinCEN terminology. See *id.* § 101, Reporter’s Note.

65. See *id.* § 102(17).

66. See *id.* § 102(20). The current draft includes the following definition of stored value instrument:

The term also includes a “money transmitter” who engages in the business of receiving money for transmission or transmitting money.<sup>67</sup>

The drafters have included stored value products within the scope of the UMSBA on the reasoning that the use of stored value as a means of payment is similar to money transmission as a process.<sup>68</sup> The drafters also are considering whether electronic currency that is transmitted over the Internet falls within the current definition of money transmitter, or needs to be separately addressed in the Act.<sup>69</sup>

The drafters have good intentions but are on the wrong track. The question is not whether emerging electronic payment systems bear some resemblance to money transmission as a process, but whether those systems are mature enough to sustain the burden of uniform legislation at this time. For two reasons, the answer is “no.” First, we have had little or no practical experience with stored value, let alone electronic currencies or other Internet payment systems.<sup>70</sup> Under such circumstances, drafting becomes guesswork:

[I]t is virtually impossible to draw sensible statutory definitions as to whom should be required to be licensed under the stored-value provisions of a Uniform Act.... Even such deceptively simple terms as ‘issuer’ and ‘redeemer,’ when applied to stored-value, can mean vastly different things among the dramatically distinct types of stored-value systems struggling to emerge in the marketplace today; in such circumstances, any definitions will be so highly specific to one or another type of provider as to be meaningless.<sup>71</sup>

Second, unlike more traditional forms of money transmission, smart cards, electronic currencies, and other innovative payment products are struggling to get off the ground. It may be years before these products are

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[A] card or other tangible object for the transmission or payment of money which contains a microprocessor chip, magnetic stripe, or other means for the storage of information, which is prefunded, and for which the value is decremented upon each use, but does not include a card or other tangible object that is redeemable only by the issuer in the issuer’s goods and services.

*See id.* § 102(26).

67. *See id.* § 102(17).

68. *See id.* § 102(20), Reporter’s Note.

69. *See id.* § 102(18), Reporter’s Note.

70. *See Plotkin Testimony, supra* note 53.

71. *See id.*

firmly established in the marketplace. Imposing burdensome laws during this critical period in time could delay or even preclude the emergence of the electronic payment systems that Internet commerce needs. In the spirit of the Framework and the minimalist approach it advocates, the Working Group should ask the National Conference of Commissioners on Uniform State Laws to remove smart cards and other innovative electronic payment products from the scope of the UMSBA.

### C. Outdated federal and state laws

Finally, the Framework states that “[e]xisting laws and regulations that may hinder electronic commerce should be reviewed and revised or eliminated to reflect the needs of the new electronic age.”<sup>72</sup>

Global electronic commerce requires a high level of innovation. Unfortunately, existing laws often place limits on who can innovate. For example, many states prohibit anyone other than a licensed bank from conducting a banking business.<sup>73</sup> “Banking” is then defined so broadly that smart cards and other electronic payment products may be included.<sup>74</sup> In effect, this precludes non-banks from innovating in the payment systems area.<sup>75</sup>

Worse, some existing laws and regulations seem to prohibit innovation altogether. For example, during the Civil War, coins were scarce. Responding to the crisis, Congress authorized the use of postage stamps as currency.<sup>76</sup> To secure a monopoly for the stamp currency, Congress added the following provision:

Whoever makes, issues, circulates, or 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

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72. FRAMEWORK, *supra* note 1, at Principles (emphasis added).

73. For example, New York prohibits any corporation other than a national bank, unless expressly authorized by the laws of New York, from issuing notes or other evidences of debt to be loaned or put into circulation as money. See N.Y. Banking Law § 131 (McKinney 1998); see generally Anita Boomstein, *Business or Banking?*, CREDIT CARD MANAGEMENT, Sept. 1998.

74. See *id.*

75. For example, American Express or some other money services business that enjoys widespread market recognition and trust might issue electronic money. The money could be denominated in dollars, or independently. Either way, it would represent a claim against a private company. See *supra* note 19.

76. See Thomas P. Vartanian et al., *Echoes of the Past with Implications for the Future: The Stamp Payments Act of 1862 and Electronic Commerce*, 67 BNA'S BANKING REPORT 464 (1996).

of lawful money of the United States, shall be fined under this title or imprisoned not more than six months, or both.<sup>77</sup>

The Civil War is long over, and the postage stamp currency gone. Unfortunately, the currency monopoly lives on, in the form of this provision. If Internet commerce generates a demand for low-cost information services, buyers will need electronic currencies capable of handling micropayments. But, so long as this antiquated statute stays on the books, few may dare to issue a circulating electronic currency that could be used to make micropayments of less than one dollar.<sup>78</sup>

State laws can be equally problematic. For example, California Penal Code Section 648 provides:

Issuing or Circulating Paper Money. Every person who makes, issues, or puts in circulation any bill, check, ticket, certificate, promissory note, or the paper of any bank, to circulate as money, except as authorized by the laws of the United States, for the first offense, is guilty of a misdemeanor, and for each and every subsequent offense, is guilty of a felony.<sup>79</sup>

This dinosaur was enacted in 1872.<sup>80</sup> Given the reference to *paper* money, the statute may not apply to electronic payment systems. Still, words like “ticket,” “certificate,” and “promissory note” are ominously vague. Laws of this kind, which threaten to make felons out of innovators, endanger our commercial future.

In sum, the Working Group must push to eliminate laws that could interfere with the free development of electronic payment systems. A useful first step would be to identify every federal and state law that could block innovation. Thereafter, the Working Group should work with Congress and the states to encourage repeal of antiquated and obstructive laws.

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77. 18 U.S.C. § 336 (1998) (emphasis added).

78. An argument can be made that “obligation” was never intended to include electronic money, and thus, the statute should not apply. After all, Civil War era lawmakers could not have had electronic payment products in mind when they passed the Stamp Payments Act. However, Congress did amend the Act as recently as 1994. *See* Vartanian, *supra* note 76. Unfortunately, this legislative activity could be taken as a sign that Congress intended to breathe new life into the Act, reaffirming and extending its prohibition to all twentieth century obligations—including electronic ones. *See id.* Because the Stamp Payments Act imposes criminal penalties for violations, uncertainty as to the meaning of the word “obligation” could chill innovation. The Working Group should urge Congress to repeal this provision.

79. Cal. Penal Code § 648 (West 1999).

80. *See id.*

## V. CONCLUSION

In order for global electronic commerce to achieve its full potential in the new millennium, the Internet needs more than credit cards. It needs cash equivalents, including global electronic currencies capable of transcending national politics and monetary policies. To encourage innovation along these lines, government must not only resist the temptation to unleash new laws and regulations, but also work to repeal the legislative sins of its past.

