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CyberFinance: Regulating Banking on the Internet

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NOTES

CYBERFINANCE: REGULATING BANKING ON THE INTERNET

INTRODUCTION

The day is coming when people will not even leave their houses to work, shop, or bank. One journalist imagines that a "day in the financial life of a future consumer may begin something like this: [w]ake up, log in, download some E-cash into your PC's hard drive, then go cruise the virtual mall."[1] However, before this becomes a mainstream reality, many issues must be addressed.

This Note will address one aspect of this emerging financial reality: non-bank entities taking deposits in exchange for electronic cash on the Internet. Currently, the non-banks are entirely unregulated and may operate in any fashion that they see fit. This Note will focus on whether these institutions can and should be regulated, and if so, how to regulate them.

Non-bank institutions have the potential to be high risk operations, similar to pre-Depression financial institutions. For this reason, and based upon the bargaining power and informational deficiencies that abound throughout the market, the government is justified in regulating these non-banks to protect the public from

1. Dave Skidmore, *Cashless Internet Difficult to Police*, THE ORANGE CO. REG., July 26, 1995, at C3.

losses that would be suffered if the Internet non-bank system failed. The government must choose its regulation wisely, so that this new market segment, primarily driven by entrepreneurs, will not be overburdened. There are many similarites between the customer relations techniques used by Internet non-banks and traditional financial institutions. The main concern with traditional institutions is consumer safety and confidence. Since these are also the main goals of regulating Internet non-banks, regulators may logically draw from existing banking regulations. Regulations such as deposit insurance, reserve requirements, capital requirements, and investment restrictions serve to increase consumer safety and confidence. These standard-setting techniques, where regulators define the means as well as the ends, are the methods that should be used to regulate these non-banks.

Part I of this Note describes the Internet, the daily business activity that occurs over the Internet, and its potential for future commerce activity. Further, current regulations for traditional financial institutions are outlined in detail. Part II is an in-depth analysis of the regulation possibilities for Internet non-banks. It explores the jurisdictional issues, focusing on interstate commerce, and delves into the justification for regulation of a market in general. Next, the circumstances surrounding Internet non-banks are examined. Specific types of regulations applicable to non-banks which facilitate optimal performance in the public and private sectors will be outlined. Part II also examines the potential benefits of regulation for non-banks.

I. BACKGROUND

A. The Internet

The medium contributing to the current technological revolution is an entity called the Internet. One way to envision the Internet is to "imagine an enormous spider web comprising thousands of smaller webs, permitting a continuous line to be traced from any point on any of the smaller webs to any point on any other web."[2] In the beginning, the Internet (then called "Arpanet"[3]) was an experimental communications network devised as part of a system to guarantee uninterrupted communications in

2. Robert L. Dunne, *Deterring Unauthorized Access to Computers: Controlling Behavior in Cyberspace through a Contract Law Paradigm*, 35 JURIMETRICS J. 1, 2 (1994).

3. Arpanet, an acronym for Advanced Research Projects Agency Network, was established for the Department of Defense. *See* Andrew Grosso, *The National Information Infrastructure*, 41 FED. BAR NEWS & J. 481, 481 (1994) (describing what is meant by the information superhighway and who controls it).

the event of a nuclear war.[4] To accomplish this, "it was designed with no central command that might be vulnerable to an outside attack."[5] The recent commercialization of this system has drastically increased its size and scope. There were four sites when it began in 1969, and thirty-seven in 1972.[6] The most recent survey conducted in January 1994, indicates that 2,217,000 host computers now exist.[7] Each host computer has the capability to support thousands of users at a given time.[8]

The Internet operates through a loose connection of individual computer systems, commonly called "nodes."[9] Each node processes the information that it receives, which often includes a "pass it on" command.[10] If a node does not have a direct connection to the destination computer, it will send the information to a different node that does have a direct connection with instructions to "send it on," although no route is specified.[11] This process continues until the information reaches its intended destination.[12] This method of transmitting information accounts for the Internet's decentralized existence and the vastness of its resources.[13] In spite of its apparent complexity, it is relatively simple to tap into this enormous technological resource. All one needs is a personal computer with a modem,[14] "a phone line, an account with a provider, and software for connecting and navigating."[15]

Currently, the most common use for the Internet is electronic mail ("e-mail"). Approximately forty million people worldwide use this form of communication.[16] In addition to e-mail, the World

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4. *See* Dunne, *supra* note 2, at 2.

5. Grosso, *supra* note 3, at 481.

6. *See* Dunne, *supra* note 2, at 2-3.

7. *See id.* A different survey reported the number of computer hosts at 4.8 million, with 10,000 added every day. *See* Penny Lunt, *Payments on the 'Net: How Many? How Safe?*, AMERICAN BANKER'S ASSN. BANKING J. 46, 50 (1995) (discussing the problems of banking through the Internet and the future role for existing banks).

8. *See* Dunne, *supra* note 2, at 2-3.

9. *See* Grosso, *supra* note 3, at 481.

10. *See id.* at 482.

11. *See id.*

12. *See id.*

13. "Because of the flexibility in the way the Net routes its information transfers, and because each node operates independently of the others, no particular computer system or group of systems is essential to the functioning of the Net." *Id.*

14. A modem is a device that a computer uses to send and receive digital information over analog telephone lines. *See* Paul Taylor, *Perspectives: Internet's Surf City—Here We Come*, FIN. TIMES, Dec. 10, 1994, at 1.

15. A vast majority of Internet users connect to it using Internet access providers who are directly connected. The cost of connecting directly to the internet is too expensive for the average consumer. *See* Gregg Keizer, *The Internet Made Easy*, COMPUTERLIFE, Mar. 1995, at 74, 76-77.

16. *See* James Mayer, *On-Line Law and Order*, PORTLAND OREGONIAN, May 14, 1995, at E1. It has been reported that approximately one billion e-mail messages are sent over

Wide Web ("WWW") is rapidly providing the Internet with worldwide acceptance. One author describes the WWW as the "brightest piece of the Internet."[17] The WWW's format uses a graphical browser, which allows the user to view pages.[18] These pages are screens packed with text and graphics, with links to other pages.[19] Not only is the format pleasing to the eye, it is easy to use. Once logged on to the WWW, the only piece of operational equipment needed is a computer mouse. There are no complex commands to learn.

The number of people joining the Internet revolution is growing. One commercial provider, America Online, reports that almost 5,000 new people subscribe to their service daily.[20] Consumers as well as commercial businesses are becoming aware of the possibilities available on the Internet. Not surprisingly, early entrants to this market have been those looking for a profit.

B. Commerce on the Internet

The number of merchants selling goods, services, and information over the Internet is staggering. Some researchers estimate that more than 25,000 merchants in 150 countries are selling or advertising products and services to twenty million users.[21] One bank executive predicted that "the Internet will evolve into the most efficient means of delivering products and services."[22] Just as importantly, the number of people buying goods through their home computers is significant and steadily increasing. A recent survey found that thirty-two percent of Internet users have purchased products and services using the Internet and that ninety-one percent planned to make purchases in the future.[23] One research company estimates that Internet commerce totaled approximately $350 million dollars in 1995.[24] Further, many "economists predict that 20

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the Internet every month. *See* Lunt, *supra* note 7, at 46.

17. Keizer, *supra* note 15, at 76.

18. *See id.*

19. *See id.*

20. *See* Mayer, *supra* note 16, at E1.

21. *See* Skidmore, *supra* note 1, at C3.

22. Joseph Radigan, *Info Highway Robbers Try Cracking the Vault . . . or 50 Million Ways to Fleece your Banker*, U.S. BANKER 66, 66 (1995).

23. *See Internet and Smart Cards Top ABA Conference List*, CARD NEWS, Sept. 18, 1995, *available in* WESTLAW, CARDN database, 1995 WL 8159249 (reporting results from a study conducted by Global Concepts, Inc., derived from three sources: telephone interviews with forty retailers, ranging from Fortune 500 corporations to small businesses; focus groups of consumers using on-line services; and an online survey of those who access the WWW).

24. *See Cryptic Cyberspace Credit*, PLAIN DEALER (CLEVELAND), Feb. 5, 1996, at 6D. Some retailers are really taking advantage of this new sales opportunity. For example, the 1-800-FLOWERS company, a flower retailer, estimates that at least $2.5 million of their total annual revenue is generated from Internet sales. *See id.*

percent of all household expenditures will go through the Internet in less than 10 years."[25] And that over the next five years, "billions of dollars will be poured into the Internet . . . with the expected return on investment in triple digits."[26]

The current system of buying goods, services, and information over the Internet is like using an interactive catalog. The customer dials into a merchant's "store" and browses until a desired item is found.[27] The customer then places the order and transmits credit card information over the computer to the merchant.[28] However, not all merchants are equipped to accept credit card transactions. Some merchants may prefer to accept anonymous electronic currency instead of paying for the credit card services, especially if the merchant will be accepting small transactions.[29]

Because credit card companies charge merchants a percentage fee for each transaction, between ninety-four to ninety-eight percent of each credit card sale is recouped after the fees are assessed.[30] For very small transactions, the total profit to the merchant after such fees are assessed is minimal. Smaller sales are a significant part of the business transacted in this country; of the more than 300 billion cash transactions in 1994, 270 billion were for less than two dollars.[31]

A possible solution to the fee problem is the development of electronic cash ("e-cash"). Most e-cash plans now in use involve cash-like certificates issued to consumers by banks or other currency providers.[32] Both the merchant and buyer have accounts with the provider and pay a fee for e-cash privileges.[33] The provider

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25. Ray Wyman, *Virtual Cash: Internet Figures to be E-Cash Medium; Future Smart Money May Bypass Banks*, PUGET SOUND BUS. J., Sept. 22, 1995, at 28.

26. *Id.*

27. The customer uses her computer's modem to call her access provider, and then uses a graphical browser to find the merchant's page. *See supra* notes 14-20 and accompanying text (describing in full the process of connecting to the Internet and the WWW).

28. However, any information sent over the Internet is subject to prying eyes. For example, a "message can pass through . . . multiple systems on its way to its final destination and maybe someone, somewhere along the way, is scanning these messages for credit card details; details which could be used for criminal purposes, making this system insecure." *Money on the Internet* (visited Aug. 20, 1996) <http://www.digicash.com/ecash/moneyonnet.html>. In a recent Harris poll "82% of Americans . . . expressed concern over privacy of computerized data." *David Chaum's Testimony for U.S. House of Representatives* (visited Aug. 20, 1996) <http://www.digicash.com/publish/testimony.html>.

29. *See* Noel D. Humphreys, *Cybercash*, 17 PA. LAW. 38, 38 (1995) (explaining electronic currency and how it functions).

30. *See* EDWIN L. RUBIN & ROBERT COOTER, THE PAYMENT SYSTEM 752 (2d ed. 1994).

31. *See Internet and Smart Cards Top ABA Conference List*, *supra* note 23.

32. *See* Humphreys, *supra* note 29.

33. *See* Frank Bajak, *Currency In Form of Electronic Cash Hits the Internet*, ORANGE CO. REG., Oct. 23, 1995, at A3.

"has a 'mint' that creates 'coins,' which are specially encoded symbol strings based on deposit amounts."[34] When the buyer wishes to make a purchase, he downloads the "coins" to his computer hard drive and transmits them to the merchant.[35] Then the merchant sends the "coins" back to the provider, who verifies their authenticity.[36] Assuming that the user-fee is less than the discount rate for credit transactions, consumers could use these "coins" in small transactions, solving the merchant's credit card fee problem.

All of the existing e-cash systems are variations of the process described above. NetBank's system relies on e-mail to transfer its NetCash coupons.[37] To buy NetCash, the customer sends a check to the NetBank.[38] The customer then receives e-mail from NetBank that looks something like this: NetCash US$ 25.00 A123456B789012C.[39] The customer is then free to spend the twenty-five dollars as he pleases. When making a purchase using NetCash, the customer must have exact change.[40] The customer may request change for his twenty-five dollars simply by sending e-mail to NetBank, which then returns coupons denominated as the customer requests.[41] Once the customer has the exact change needed, he will send e-mail to the merchant (or through the merchant's Web page) with the NetCash coupon (NetCash US$ 5.00 C345678D901234E).[42] Using e-mail, the merchant then sends a notice of acceptance to the NetBank.[43] Anyone with an e-mail address can accept NetCash.[44] However, only those with NetBank accounts can turn their NetCash back into real money.[45] The process involves sending e-mail to NetBank requesting that they deposit NetCash into the customer's account. Once a month thereafter, a reimbursement check will be issued.[46] The advantages of this system are that no special software is needed,

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34. *Id.*

35. *See id.*

36. *See id.*

37. *See Frequently Asked Questions* (visited Aug. 20, 1996) <http://www.netbank.com/~netcash/ncfaq.html#i>.

38. *See id.* There is a 2% fee for purchasing NetCash. *See id.*

39. *See Quick Start Guide: 1. Buying NetCash from the NetBank* (visited Aug. 20, 1996) <http://www.netbank.com/~netcash/ncquick1.html>.

40. *See Frequently Asked Questions, supra* note 37.

41. *See id.*

42. *See Quick Start Guide: 3. Sending NetCash to Merchants* (visited Aug. 20, 1996) <http://www.netbank.com/~netcash/ncquick3.html>.

43. *See Frequently Asked Questions, supra* note 37. The merchant is simply checking with NetBank to verify that the serial number on the certificate is valid. *See id.*

44. *See id.*

45. *See id.* To receive a NetBank account, there is a one time fee of $19.95. *See id.*

46. *See id.* There is a "conversion fee" of two percent or four dollars, whichever is greater, deducted from the reimbursement check. *See Frequently Asked Questions, supra* note 37.

there is no transaction fee,[47] and the only privacy risk during a transaction is that someone might view the amount of NetCash being transferred.

A slightly different system is being used by DigiCash. This company markets its own software package to facilitate the transfer of e-cash among its participants.[48] This software runs in the background of a computer system and is available whenever the user decides she wants to send or receive e-cash.[49] Originally, DigiCash issued "Cyberbucks," which were fictitious coins with no real money backing them in order to test the system.[50] However, Digicash has now licensed its system to Mark Twain Banks, which is opening e-cash accounts in real dollars.[51] The user opens an account at the Bank (assuming real dollars are being used and not the Cyberbucks) and then downloads as much of the deposit into her computer as needed.[52] This process is done simply by clicking the withdraw button on the software and then entering in the amount to withdraw.[53] The software then manages any payments or collections that the user makes, including automatically making change if needed.[54] The Bank's only role in the e-cash transaction is ensuring the authenticity of e-cash forwarded to it by the payee.[55] The software also manages all transactions, creating an electronic "bank" statement.[56] As helpful as the software can be, there is one major limitation to this system: only people who own it

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47. The only fee is the conversion fee. There is no charge for spending or accepting NetCash or making change. *See id.*

48. *See Digicash—An Introduction to ecash* (visited on Apr. 15, 1996) <http://www.digicash.com/publish/ecash_intro.html>.

49. *See id.*

50. *See DigiCash ecash—about ecash* (visited Aug. 20, 1996) <http://www.digicash.com/ecash/about.html>.

51. *See DigiCash ecash—ecash issuers* (visited on Aug. 20, 1996) <http://www.digicash.com/ecash/ecash-issuers.html>. Therefore, the current DigiCash project with Mark Twain Banks is not relevant to the subject of this Note because Mark Twain Banks is already subject to regulation. However, Digicash admits that a "growing number of banks, financial institutions and *other organizations* are very interested in issuing ecash," implying that non-banks could purchase the technology. *Digicash ecash—about ecash*, *supra* note 50.

52. *See DigiCash—An Introduction to ecash* (visited Aug. 20, 1996) <http://www.digicash.com/publish/ecash_intro/ecash_intro.html>. These deposits could also be down-loaded onto a plastic card that is embedded with a computer chip. *See* Kelley Holland & Amy Cortese, *The Future of Money*, BUS. WK., June 12, 1995, at 66, 66.

53. *See DigiCash—An Introduction to ecash*, *supra* note 48.

54. *See id.*

55. *See id.* To ensure that each coin is used only once, the Bank keeps track of the serial number of each coin it issues. When the Bank receives coins from the payee, it will check to verify that it has a record of that serial number, and that the serial number has not already been returned. This process confirms the serial number's authenticity and validity. *See id.*

56. *See id.* (showing what an electronic bank statement looks like).

may receive e-cash.

Banks and financial institutions are venturing into this new area of Internet finance, which is not unlike other traditional banking transactions. However, as noted previously, many private non-banks are using the e-cash concept. One of these non-banks, CyberCash, Inc. of Virginia, was founded in 1994 to develop Internet payment systems.[57] Their goal was to establish a "trusted link between the seemingly unpredictable world of cyberspace and the traditional banking world. CyberCash serves as a conduit through which payments can be transported easily, safely, and instantaneously between buyers, sellers, and their banks."[58]

DigiCash has been the most aggressive company in this arena.[59] They rely heavily on cryptography[60] to make the e-cash secure, and their system allows registration and verification by the issuer without revealing the customer's identity.[61] Therefore, DigiCash's e-cash is "as anonymous as the dollar bill in your wallet."[62] In order to test its idea, DigiCash gave fifty merchants and approximately 5,000 consumers one million dollars in e-cash.[63] It has been said that "[i]f non-banks successfully introduce their own brand of digital cash, they could bypass banks as prima-

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57. *See CyberCash First Electronic Payment Developer to Receive International Export Approval*, M2 PRESSWIRE, May 9, 1995, *available in* WESTLAW, MAGSPLUS database, 1995 WL 10478529 (describing CyberCash, Inc.).

58. *Id.* CyberCash, Inc. mainly deals in secured credit card transactions, not e-cash as described in this Note. *See Who We Are* (visited on Aug. 23, 1996) <http://www.cybercash.com/cybercash/info/overview.html>.

59. *See* Wyman, *supra* note 25, at 34 (discussing e-cash corporations).

60. Cryptography is the most popular method of securing information transmitted over the Internet:

> [It involves] two cryptographic keys, a public key and a private key. The sender of [information] holds the private key and is the only person with access to it, a crucial requirement to the validity of the public key encryption system. The sender uses the private key to encrypt the [information]. The receiver decrypts the [information] using the public key. This key, made available to the public by the private key holder, will decode any message initially encrypted by the holder's private key (and only by the holder's private key). Any attempt to alter the encoded [information] results in decoding what amounts to "digital garbage," thereby ensuring the authenticity of the [information].

Grosso, *supra* note 3, at 483.

61. *See* Wyman, *supra* note 25, at 28. This anonymity is achieved using "blind signatures." The user's computer generates blank coins hidden in digital envelopes when it makes a request to download e-cash. These digital envelopes will be sent to the bank and marked with a validating stamp, which also marks the blank coins inside. Then these validated envelopes are sent back to the user's computer, where the coins are taken out of their envelopes. The result is a validated coin lacking the signature of a particular user's computer. *See DigiCash Ecash—An Introduction to ecash*, *supra* note 48 (discussing verification).

62. Wyman, *supra* note 25, at 28.

63. *See id.*

ry providers of consumer financial services. These companies, not the banks, will then become the consumer's first contact when they want to obtain digital money."[64]

C. *Existing Bank Regulation*

Chartered banks and institutions associated with them are subject to extensive federal regulation; non-banks are currently unregulated. The question of whether non-banks should be subject to comparable regulation is important. This is true especially in light of the issues of consumer confidence and protection that arise in both the traditional banking and non-bank forums.

1. Operation Laws

One important reason for regulating banking institutions is to ensure that the financial sector remains stable.[65] The existence of deposit insurance provided by the Federal Deposit Insurance Corporation ("FDIC") increases confidence in the system.[66] It also puts an end to banking panics, because potential insolvency of one bank will not threaten other banks in the network.[67] "A major cause of cumulative bank failures is depositors who attempt to be first in converting their bank deposits into currency."[68] The FDIC covers $100,000 per account.[69]

Deposit insurance tends to create a sense of security in an individual depositor regardless of the actual financial status of a bank. As long as a bank is insured by the FDIC, depositors will remain loyal.[70] Depositor confidence may prompt banks to take more risks.[71] However, depositor overconfidence may tempt a

64. *Id.*

65. *See* DAVID S. KIDWELL & RICHARD L. PETERSON, FINANCIAL INSTITUTIONS, MARKETS, AND MONEY 253 (4th ed 1990); *see also* GEORGE J. BENSTON & GEORGE G. KAUFMAN, RISK AND SOLVENCY REGULATION OF DEPOSITORY INSTITUTIONS: PAST POLICIES AND CURRENT OPTIONS 22 (1988) (noting that "[a] major reason for banking supervision in most countries is protection of depositors from the loss of their investments").

66. *See* KIDWELL & PETERSON, *supra* note 65, at 254.

67. *See id.* at 268. The legislative history from the enactment of the Federal Deposit Insurance Act documents the insurance fund's success. "Insurance of bank deposits by the Corporation [FDIC] began on January 1, 1934. The results since that date bespeak the outstanding record the Corporation has achieved in bringing to depositors sound, effective, and uninterrupted operation of the banking system with resulting safety and liquidity of bank deposits." H.R. REP. NO. 81-2564 (1950), *reprinted in* 1950 U.S.C.C.A.N. 3765, 3765-66.

68. *See* KIDWELL & PETERSON, *supra* note 65, at 268.

69. *See id.* at 255. The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 ("FIRREA") restructured the FDIC, dividing it into the Bank Insurance Fund, covering banks, and the Savings Account Insurance Fund, covering savings and loans. *See* PETER S. ROSE, COMMERCIAL BANK MANAGEMENT 82 (2d ed. 1993).

70. *See* KIDWELL & PETERSON, *supra* note 65, at 259. "Insurance of any kind makes people somewhat less careful because the costs or penalties of loss are perceived to be less than they would be without insurance." BENSTON & KAUFMAN, *supra* note 65, at 23.

71. "[F]ederal deposit insurance provides a safety net for banks . . . [and] [b]oth theo-

bank into financial ruin. The FDIC has developed a "police mentality" in order to protect overconfident depositors from banks who may take advantage of their loyalty. As an insurer, the FDIC has a vested interest in preventing institutional failure. The FDIC has instituted various policies to ensure the safe operation of depository institutions.[72] One author has noted that the FDIC's "power to examine banks and issue cease and desist orders inhibits much risk taking by bank management and shareholders."[73]

Any depository institution "engaged in the business of receiving deposits" can apply to the FDIC and receive coverage.[74] However, there are at least six factors that the FDIC analyzes in granting coverage to an institution: the financial history and condition of the depository institution; the adequacy of the depository institution's capital structure; the future earnings prospects of the depository institution; the general character and fitness of the management of the depository institution; the risk presented by such depository institution to the insurance fund; and the convenience and needs of the community to be served by such depository institution.[75]

In addition to deposit insurance, traditional banking institutions are subject to many balance sheet restrictions that are intended to prevent failures and promote stability in the industry.[76] They are subject to certain capital requirements, reserve requirements, and limitations in the types of securities that they may hold.[77]

Banks must have a certain minimum capital at start-up and must maintain satisfactory levels during their existence.[78] Federal

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ry and evidence on safety nets in other activities indicate that they tempt participants to increase their exposure to risk." BENSTON & KAUFMAN, *supra* note 65, at 23; *see also* Alfred E. Kahn, *Deregulation: Looking Backward and Looking Forward*, 7 YALE J. ON REG. 325, 350 (1990) ("So long as the government guaranteed their deposits, institutions whose assets may have been worth far less than their liabilities could nevertheless continue to attract deposits by offering higher interest rates, and could engage in additional risky investments—as well as continued speculation").

72. *See* KIDWELL & PETERSON, *supra* note 65, at 259. "[T]he presence of federal deposit insurance, enormously increased the necessity for vigilant bank examination, enforcement of capital requirements sufficient to provide a cushion against losses, varying deposit insurance premiums with the riskiness of the lending and investing activities of the insured institutions, and a readiness to close down S&Ls that were effectively insolvent." Kahn, *supra* note 71, at 350.

73. ROSE, *supra* note 69, at 474.

74. 12 U.S.C. § 1815 (1994). Some state laws require financial institutions to insure their deposits with the FDIC. See, e.g., OHIO REV. CODE ANN. § 1101.061 (Baldwin 1994), *repealed by* H.B. NO. 538, 121st General Assembly (repealing the former section but moving the FDIC requirement to another section); OHIO REV. CODE ANN. § 1151.41 (Baldwin 1994) (requiring savings and loans to obtain FDIC coverage).

75. *See* 12 U.S.C. § 1816.

76. *See* KIDWELL & PETERSON, *supra* note 65, at 270.

77. *See id.*

78. *See id.*

statute requires that a bank must initially have at least $100,000 capital at start-up.[79] Further, they must have a "paid-in surplus" equal to twenty percent of capital.[80] Banks have been required to maintain higher capital requirements since FIRREA was passed.[81] Banks are now required to hold capital in an amount at least equal to three percent of their assets in order to remain in good standing with the regulators.[82] Adequate capital is additional assurance against institutional failure because losses are written off against capital.[83] Therefore, the more sound the bank's capital account the more prepared it is for any losses that may occur. Additionally, "[c]apital regulation by regulatory agencies has become an increasingly important policy tool to limit how much risk exposure banks can accept, thereby promoting public confidence and protecting the government's deposit insurance system from massive losses."[84]

Banks are also required to maintain certain reserves to ensure that the institution will have adequate liquid assets in case of numerous or large withdrawals.[85] These reserves are a percentage of their deposits and certain nondeposit liabilities that are held at their district Federal Reserve bank or as cash in their vault.[86] The amount of reserves varies with the volume and type of deposits that the bank holds.[87] For transaction deposits,[88] the reserve requirement is three percent of the daily average amount held over a two-week period, up to $42.2 million.[89] For amounts over $42.2 million, the reserve requirement is ten percent.[90] Interestingly, the reserve requirement is not what actually provides day to day liquidity;[91] excess reserves that banks have voluntarily set aside

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79. *See* 12 U.S.C. § 51. However, the statute does provide that if the institution is formed in a place with a population of not more than 6,000, the capital requirement is only $50,000. Further, if the population is over 50,000, the capital requirement is increased to $200,000. *See* § 51.

80. *See* § 51. Surplus is normally referred to as the "excess amount above each share of stock's par value paid in by the bank's shareholders." ROSE, *supra* note 69, at 475.

81. *See* KIDWELL & PETERSON, *supra* note 65, at 272.

82. *See id.* at 273. In practice, this amount is probably closer to five percent of their assets. *See* ROSE, *supra* note 69, at 484.

83. *See* KIDWELL & PETERSON, *supra* note 65, at 270.

84. ROSE, *supra* note 69, at 471-72.

85. *See* KIDWELL & PETERSON, *supra* note 65, at 270.

86. *See id.* at 203.

87. *See* ROSE, *supra* note 69, at 362.

88. Transaction deposits are checking accounts, negotiable orders of withdrawal ("NOWs"), and other deposits that can be used to make payments. However, they are not short-term business or consumer certificates of deposit, or savings accounts. *See id.* at 362-63.

89. *See id.* at 362. The $42.2 million figure was the cutoff amount as of April 1992. The law requires this amount to be adjusted every year by the Federal Reserve Board. *See id.* at 362 n.1.

90. *See id.* at 362.

91. *See id.* at 208. Since the reserve requirements would be tied up in the bank's

provide liquidity.[92] However, the reserve requirements do provide emergency liquidity because a bank could use these amounts to satisfy depositor withdrawals rather than failing, taxing the insurance fund, and penalizing depositors.[93] The only negative impact is that the bank will be penalized for dipping below its reserve requirements.[94]

In an effort to further reduce risk, banks are restricted in the type of investments that they may make. Most regulators require that banks only invest in "investment grade"[95] corporate or municipal bonds. Further, banks are not allowed to invest in equity securities (i.e. stock).[96] "The prohibition on owning equity securities represents the belief that banks should not own risky assets because losses on these securities could precipitate bank failures."[97] Equity securities are riskier than bonds because there is no guaranteed principal. With bonds, the initial investment is returned if the bond is held until maturity. However, stock value is entirely a function of the market and investors are subject to a loss of the entire initial investment. A huge stock portfolio loss would absorb large amounts of capital and may actually reduce a bank's deposit base. Additionally, an unscrupulous bank could use its ownership powers to take control of a company.[98] Thus, the prohibition against ownership of equity securities by banks serves several ends.

2. Consumer Protection Laws

In addition to the regulations affecting the internal operation of banks, there are many consumer protection laws that banks must comply with. These regulations also increase consumer protection and confidence. Much of the consumer protection law regarding debit cards and wire transfers comes from the Electronic Funds Transfer Act of 1978.[99] The Federal Reserve Board promulgated Regulation E in order to meet the Act's requirements.[100] Regulation E covers all electronic funds transfers ("EFT"), defined as

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Federal Reserve account, the money could not be used to satisfy withdrawals. Moreover, any amount used to satisfy customer withdrawals would place the bank in non-compliance with reserve requirements. See *id.* at 206-09 (detailing a non-compliance scenario).

92. *See* ROSE, *supra* note 69, at 208.

93. *See id.* at 209.

94. *See id.*

95. Investment grade means only "bonds rated Baa or higher by Moody's or BBB or higher by Standard and Poor's." KIDWELL & PETERSON, *supra* note 65, at 270.

96. *See id.*

97. *Id.*

98. *See id.*

99. 15 U.S.C. § 1693(b)-(r) (1994).

100. *See* Electronic Fund Transfers (Regulation E), 12 C.F.R. § 205.1-.15 (1995); *see also* RUBIN & COOTER, *supra* note 30, at 839 (2d ed. 1994) (identifying the source of the laws).

"any transfer of funds, other than a transaction originated by check, draft, or similar paper instrument, that is initiated through an electronic terminal, telephone, or computer or magnetic tape for the purpose of ordering, instructing, or authorizing a *financial institution* to debit or credit an account."[101] The regulations define financial institution as "a State or National Bank . . . or any other person who, directly or indirectly, holds an account belonging to a consumer."[102] A point-of-sale transaction using a debit card is a good example of an EFT. The debit card communicates information about the customer's account to a central computer, which in turn contacts the customer's bank to verify the funds.[103]

Regulation E requires anyone engaging in an EFT to disclose terms and supply transaction records, "thus increasing consumer information."[104] The purpose of disclosures like these are to keep prices in line with costs.[105] If consumers have insufficient information about some terms of the payment contract, they will not place competitive pressure on those terms.[106] "If ignorance shields some terms of the contract from competition, the implicit price of the item will get out of line with the cost of providing it."[107]

Regulation E also limits the loss consumers can suffer from the fraudulent use of an ATM or other debit card.[108] "[T]here is no consumer liability unless the card or access device has been accepted by the consumer (not merely mailed unsolicited) and the means of access includes a way of identifying the person authorized to use it, such as personal identification number (PIN)."[109] If these preconditions are met, the consumer's liability is limited to "the lesser of $50 or the actual loss that occurs prior to the financial institution receiving notice of possible unauthorized use."[110] Failure to report the loss or theft of the card or access device within four business days after the consumer learns of it raises the

101. 12 C.F.R. § 205.2(g) (emphasis added).

102. 12 C.F.R. § 205.2(i). Account is defined as "a demand deposit (checking), savings, or other consumer asset account." § 205.2(b).

103. *See* RUBIN & COOTER, *supra* note 30, at 838.

104. *Id.* at 839. One of the more important of these disclosures is the pricing of EFT services, which is required under 15 U.S.C. § 1693(c). *See id.* at 844.

105. *See id.* at 842.

106. *See id.*

107. *Id.*

108. *See* 12 C.F.R. § 205.6 (1995). For statutory authority, see 15 U.S.C. § 1693(g). *See also* DAVID LASTER & JOHN WENNINGER, *Policy Issues Raised by Electronic Money* (paper presented on April 21, 1995, at the Conference on Digital Cash and Electronic Money organized by the Columbia Institute for Tele-Information, at the Columbia Business School) (visited on Mar. 15, 1996) <http://www.ctr.columbia.edu/citi/emoney.html>.

109. RUBIN & COOTER, *supra* note 30, at 946.

110. *Id.* at 946-47.

limit of liability to $500.[111] Further, if the consumer fails to report an unauthorized transfer within ninety days of the receipt of their periodic statement, the consumer is liable for any and all losses.[112]

Credit transactions have similar consumer protection laws. The Consumer Credit Protection Act,[113] which includes the Truth in Lending provisions and the accompanying Regulation Z,[114] are the main consumer protection laws covering credit transactions. In order to meet the guidelines of Regulation Z, four conditions must be met: (1) the credit must be offered or extended to consumers; (2) the offering or extension of credit must be done regularly; (3) the credit must be subject to a finance charge or payable in more than four installments; and (4) the credit must be primarily for personal, family, or household purposes.[115] "Credit" is defined as "the right to defer payment of debt or to incur debt and defer its payment."[116] The typical credit transaction involves many parties:

> The two immediate parties to a credit card transaction are the purchaser, who uses the card to pay, and the merchant, who accepts the payment. Additional parties include the bank that issued the card to the purchaser, the bank which enrolled the merchant in the credit card system, and the credit card corporation, which usually processes the transactions.[117]

Regulation Z has provisions for disclosure and limited liability, that are similar to those for EFTs.[118] However, with credit transactions there is a greater concern with the cost of credit and its calculation. To this end, each state has enacted usury laws setting the maximum interest rate that can be charged on consumer loans.[119] Further, the regulations state that the cost of credit must be disclosed in terms of its Annual Percentage Rate ("APR")[120] to

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111. *See id.* at 947.

112. *See id.*

113. 15 U.S.C. § 1601 (1994), *as amended by* Acts of May 18, 1995 and Sept. 30, 1995, 15 U.S.C.S. § 1601 (Law. Co-op. Supp. 1996).

114. 12 C.F.R. § 226.1-.33 (1995).

115. *See* § 226.1(c)(1).

116. § 226.2(a)(14).

117. RUBIN & COOTER, *supra* note 30, at 715.

118. *Compare* § 226.6-.7 (requiring that the consumer be provided with a detailed initial disclosure statement, listing all finance (and other) charges, and acknowledge the existence of a security interest) *and* § 226.12(b) (limiting liability to the lesser of $50 or the amount charged before notification to the card issuer) *with supra* notes 104-12 and accompanying text.

119. *See* RUBIN & COOTER, *supra* note 30, at 717.

120. The Truth In Lending Act employs the APR as a "yardstick" for expressing interest rates on consumer loans. *See id.* at 733.

enable consumers to compare the true cost of credit at different institutions.[121]

Further, deposit account transactions (i.e. checks) have similar consumer protection laws. The Truth in Savings Act[122] lists many of the disclosure requirements. The purpose of this Act is to require the "clear and uniform disclosure" of interest rates payable on deposit accounts and fees assessable against deposit accounts "so that consumers can make a meaningful comparison between the competing claims of depository institutions with regard to deposit accounts."[123] The Act is implemented through Regulation DD.[124] There are provisions requiring account disclosures when an account is opened and thirty day notice to the customer of any changes from the initial disclosure.[125] There are also requirements if an institution provides a periodic statement.[126]

D. The Problem

Since the Internet non-banks are not being subjected to these types of regulations, they are the financial institutions that create concern within financial and political circles.[127] The "non-bank financial institutions that can accept or transfer assets, in the form of funds or commodities, that are not adjuncts of traditional, chartered banks"[128] are the subject of this Note. The question is whether this concern is justified, and if so, what can and should be done about it.

> The [APR] . . . shall be computed by multiplying each periodic rate by the number of periods in a year and . . . shall be determined as follows . . . [if] the finance charge imposed during the billing cycle is or includes a minimum, fixed, or other charge not due to the application of a periodic rate, other than a charge with respect to any specific transaction during the billing cycle, by dividing the total finance charge for the billing cycle by the amount of the balance(s) to which it is applicable and multiplying the quotient (expressed as a percentage) by the number of billing cycles in a year.

12 C.F.R. § 226.14(c).

121. *See* RUBIN & COOTER, *supra* note 30, at 733.

122. 12 U.S.C. §§ 4301-13 (1994).

123. § 4301(b).

124. Truth in Savings (Regulation DD), 12 C.F.R. §§ 230.1-.9 (1995) (providing for the disclosure of rate information, methods of interest computation, fees, balance information, and features associated with particular accounts); *see also* RUBIN & COOTER, *supra* note 30, at 205.

125. *See* § 230.4-.5.

126. *See* § 230.6 (requiring statement to reflect amount of interest, fees imposed, and length of statement period).

127. *"Phantom" Cyberbanks Pose Laundering, Tax Evasion Threat*, MONEY LAUNDERING ALERT, July 1, 1995, *available in* WESTLAW, ALLNEWS database, 1995 WL 8353498 (discussing the "speed, security, and anonymity" of cyberbank activities which may entice money launderers and tax evaders).

128. *Id.*

II. ANALYSIS

A. *Jurisdiction Over Non-Banks*

The first question to be addressed is whether these non-bank entities operating only on the Internet could be subject to federal regulation. This is essentially an issue of congressional authority, and is largely outside the scope of this Note. However, this Note will briefly explore possible ways that the federal government could regulate these entities using the Commerce Clause.[129]

Internet non-bank's use of the telephone lines is the most probable link to congressional commerce clause authority. As one author put it, "[D]on't forget that telephone lines—all telephone lines—are a utility that government can easily regulate, and does so with near impunity."[130] The government already uses its commerce clause authority over telephone lines to obtain jurisdiction over certain crimes. For example, it is a federal offense to defraud another person using the telephone wires in interstate commerce.[131] It is also a federal offense to produce, traffic or use a counterfeit access device[132] to defraud if it affects interstate commerce.[133] Because a system of Internet e-cash would necessarily require that information is exchanged between computers in different states via telephone lines, these exchanges would likely meet the definition of "interstate commerce."[134]

Another example is the criminalization of fraud-related activity in connection with financial institution computers via the Computer Fraud and Abuse Act of 1984.[135] The Act defines financial insti-

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129. "The Congress shall have Power . . . To regulate Commerce . . . among the several States." U.S. CONST. art. I, § 8, cl. 3.

130. Wyman, *supra* note 25, at 28, 34.

131. It is illegal for any person to devise any scheme to defraud or to obtain money or property and *transmit by means of wire communication in interstate commerce* any writings for the purpose of executing that scheme. *See* 18 U.S.C. § 1343 (1994).

132. An access device is "any card, plate, code, account number, electronic serial number, mobile identification number, personal identification number . . . or other means of account access that can be used . . . to obtain money, goods, services, or any other thing of value, or that can be used to initiate a transfer of funds." 18 U.S.C. § 1029(e)(1) (1994).

133. "Whoever—(1) knowingly and with intent to defraud produces, uses, or traffics in one or more counterfeit access devices . . . shall, if the offense *affects interstate commerce* . . . be punished . . . . " 18 U.S.C. § 1029(a) (1994) (emphasis added).

134. Many Internet connections are maintained through regular analog telephone lines, but some are maintained through "dedicated" communication lines that carry Internet transmissions. However, the manner of transmission is irrelevant because the nature of the Internet requires that these transmissions travel through interstate commerce. *See supra*, notes 2-14 and accompanying text (describing the organization of the Internet). *But cf.* United States v. Lopez, 115 S. Ct. 1624, 1634 (1995) (holding regulation of gun possession in a school zone pursuant to 18 U.S.C. § 922(q) (1994) to be an unconstitutional exercise of Congress' Commerce Clause power).

135. 18 U.S.C. § 1030 (1994).

tution as "an institution, with deposits insured by the [FDIC]."[136] More directly, federal law appears to require that any entity taking deposits[137] be subject to examination and regulation by the federal and/or state government.[138] Additionally, two federal court cases suggest that there is nothing about Internet actions that distinguishes them from any other activity covered by federal law.[139] Thus, Congress could reach Internet non-banks through its commerce clause authority, and courts will likely not distinguish these electronic actions from any others.

B. Justification for Regulation

Assuming that the federal government can obtain jurisdiction over non-banks, it will still face challenges over how it uses this power. The issue of whether or not to regulate will be addressed in the abstract and then applied to the specific situation confronting regulators on the Internet.

"The rationale for economic regulation presumes the existence of circumstances such that regulation will improve the working of the market system."[140] Circumstances when the free market no longer works efficiently are generally referred to as "market failures."[141] There is a strong presumption that the free market is the best system for achieving optimal results, and that government regulation is not desirable because it interferes with this system.[142] A corollary of this presumption is that public officials do not possess enough knowledge about the industry (or the Internet)

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136. § 1030(e)(4).

137. *See infra*, note 252 (defining deposits under 12 U.S.C. § 1813(l)).

138. The Glass-Steagall Act states in pertinent part:

> [It] shall be unlawful . . . (2) For any person, firm, corporation . . . or other similar organization to engage, to any extent whatever with others . . . in the business of receiving deposits subject to check or to repayment upon presentation of . . . evidence of debt, or upon request of the depositor, unless such person, firm, corporation . . . or other similar organization (A) shall be incorporated under, and authorized to engage in such business by, the laws of the United States or of any State . . . and subjected, by the laws of the United States, or of the State . . . wherein located, to examination and regulation.

12 U.S.C. § 378(a)(2) (1994). The punishment for not complying with this section is a fine of not more than $5,000 and/or prison for no longer than five years. If a firm violates the section, the officers, directors, employees, or agents of the firm may be subject to the punishment. § 378(b).

139. *See, e.g.*, Religious Technologies v. F.A.C.T.N.E.T., 907 F. Supp. 1468 (D. Colo. 1995) (posting unpublished information over the Internet as a copyright infringement); United States v. Baker, 890 F. Supp. 1375 (E.D. Mich. 1995) (involving e-mail threats which crossed international boundaries).

140. George Daly & David W. Brady, *Federal Regulation of Economic Activity: Failures and Reforms, in* ECONOMIC REGULATORY POLICIES 171, 171 (James E. Anderson ed., 1976).

141. *See id.*

142. *See* ALAN STONE, REGULATION AND ITS ALTERNATIVES 45 (1982).

to regulate it successfully.[143] When considering the regulation of an industry, government should determine: (1) whether the unregulated market performs at a high level, both economically and socially; (2) whether there is sufficient justification for the regulation; (3) whether regulation will cause the market to perform better than without the regulation; and (4) whether the benefits of regulation outweigh the costs.[144] There are many different formulations of the justifications for regulation,[145] but they all rely on similar notions. One formulation is that regulation is justified when there are: natural monopolies;[146] public goods;[147] third-party effects;[148] absence of competition;[149] informational deficiencies;[150] or inefficient extraction of natural resources.[151] Another more thorough formulation is presented by Alan Stone; he provides three major categories of market failure that may justify regulation: efficiency, externalities, and equity.[152]

The efficiency justification concludes that under certain circumstances the free market will not utilize its resources properly.[153] These circumstances arise with both natural and market monopolies, the need to coordinate an industry, and the need to promote an industry.[154] However, because the efficiency justification deals

143. *See id.*

144. *See id.* at 56-57.

145. *See* Daly & Brady, *supra* note 140, at 172-74 (discussing both economic and non-economic efficiency rationales for government regulation).

146. Certain types of production are inherently inconsistent with a competitive market structure. For example, telephone service or natural gas distribution would involve needless duplication of facilities if more than one firm were to provide the service. Freed of competition in the market, these firms will not operate at an optimal level and require regulation. *See id.* at 172.

147. These goods are commodities that if they are supplied to anyone, must be supplied to everyone. Examples are national defense, police protection, and disease control. Since everyone must benefit from these services, no rational consumer will voluntarily pay for them. This requires the government to finance these activities through the imposition of involuntary taxes. *See id.*

148. When the production or consumption of some commodity affects the welfare of third parties, the government will intervene to subsidize those activities that exude positive third party effects (i.e. education) and tax or restrict those that have harmful effects (i.e. pollution). *See id.*

149. When a monopoly has formed in a market, the government will intervene through antitrust actions to restore competition. *See id.* at 173.

150. The efficiency of the free market relies on its participants being fully aware of the costs and benefits of the commodities that are transferred. When this information is difficult for consumers to obtain (i.e. drug purity), the government intercedes to ensure informational flow. *See* Daly & Brady, *supra* note 140, at 173.

151. If the market is inefficient in its use of natural resources, the government will step in to maximize the use of this resource. For example, before seamless pipes were used to transport natural gas billions of cubic feet of natural gas were lost each day. *See id.*

152. *See* STONE, *supra* note 142, at 63.

153. *See id.* at 65.

154. *See id.* at 65-88 (describing, in detail, the circumstances that create market failures under the efficiency justification).

primarily with competitive behavior, it does not apply to the non-banks discussed herein.[155] The second justification concerns managing the externalities of an industry.[156] An externality is "an activity that imposes costs or benefits upon persons who are not parties to a transaction or contract."[157] This market failure will not justify regulation of non-banks because the primary concern is with parties to non-bank transactions. The final and most applicable market failure, referred to as the equity justification, focuses on the freedom to contract as an essential element of a free market system.[158] Freedom to contract promotes efficiency in that the agreement allows each party to choose the most optimal terms for their benefit.[159] The foundation of this argument is that private law requires the formation of all contracts to be rational and just.[160] Stone's conception of rationality, termed instrumental rationality, is defined as the "consideration of alternative means to the end, of the relations of the end to the secondary consequences, and finally of the relative importance of different possible ends."[161]

If one of the assumptions underlying the free contract system is missing, then the government must step in to protect the public.[162] There are four instances where this occurs: government agreements, discriminatory contracts, bargaining power disparity, and information disparity.[163] Government agreements are not at issue here because contractual difficulties only arise when the government grants an operational privilege to a company.[164] Non-banks do not operate under this system. In addition, discriminatory contracts are not an issue for non-banks since there is presently no

155. Currently there are many companies, such as DigiCash, CyberCash, Microsoft, Xerox, Visa, and Citicorp, who are trying their hands at different forms of e-cash. *See* Holland & Cortese, *supra* note 52, at 66. Because there is competition in the market, the efficiency justification is not at issue here. However, it is possible that after time one firm may become dominant in producing e-cash and will obtain monopoly power in the e-cash market. At that time, the efficiency justification will come into play. *See id.* at 72, 74 (discussing the threat that Microsoft will "hook its 70 million Windows customers into the electronic-commerce networks it is developing").

156. *See* STONE, *supra* note 142, at 91-101.

157. *Id.* at 91.

158. *See id.* at 125.

159. *See id.* at 128.

160. *See id.* at 132.

161. *See* STONE, *supra* note 142, at 132.

162. *See id.* at 133-34.

163. *See id.* at 133.

164. The difficulties arise because the government is creating a monopoly by granting the right to operate in a particular market to one or more companies in order to minimize public inconvenience. A common example of this is the railroad companies of the early 20th century. *See id.* at 136-37. *See generally id.* at 134-39 (discussing, in detail, government agreements and their effects on contractual relations, and the example of early railroad monopolies).

evidence of any discriminatory treatment by non-banks.[165] Disparities in bargaining power and information are the two main problems that justify government regulation of non-banks.

Frequently, the government must intervene to correct instances where there is unequal bargaining power.[166] Common law allows for voiding a contract made under duress, and "gross bargaining power inequality" may account for some instances of duress.[167] When determining whether the disparity is sufficient to warrant intervention, the government must look to see if there is a gross inequality and whether the contract is commercially reasonable.[168]

One school of thought takes a very narrow approach to the unequal bargaining power argument to set aside terms of the contract. This theory reasons that a contract should only be set aside when there is "some defect in the *process* of contract formation (duress,[169] fraud, or undue influence) or some incompetence in the party against whom the contract is to be enforced."[170] Without these factors to consider, the courts would be randomly reviewing a private agreement looking for objectionable terms.[171] This practice would be a violation of the freedom to contract, and should not be allowed.[172]

The last popular reason for government intervention is the presence of information disparity.[173] "The wide information disparity between buyers and sellers of increasingly complex goods and services coupled with the incentives that sellers sometimes have to conceal, mislead, or deceive has led to rising concern about whether the protections afforded by contract are sufficient."[174] The problem arises only when the disparity is so great

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165. Contracts are considered discriminatory if they are entered into not on the basis of cost-benefit analysis, but rather on the basis of race, religion, sex, etc. *See id.* at 139-40, 46 (discussing, in detail, discriminatory contracts and how they affect economic efficiency and free contract).

166. *See* STONE, *supra* note 142, at 146

167. *See id.* at 147.

168. *See id.* at 147-49 (discussing why unequal bargaining power and unreasonable contracts constitute duress, thus preventing efficient use of market resources).

169. Duress is defined here in the narrow sense of obtaining a person's consent to an agreement by requiring her to sacrifice one of two basic rights, physical integrity or private property, in order to protect the other. *See* Richard A. Epstein, *Unconscionability: A Critical Reappraisal*, 18 J. LAW & ECON. 293, 295 (1975). Therefore, economic duress would not be included in Epstein's definition of duress, because it does not require a sacrifice of one of the basic rights to get the other. *See id.* at 297.

170. *Id.* at 315.

171. *See id.* at 294 (describing how an attitude of public intervention has entered the legal system and thus altered how courts address contract issues).

172. *See id.* at 293.

173. *See* STONE, *supra* note 142, at 153 (discussing how information disparity develops and how the government has treated such situations).

174. *Id.*

that one party cannot make a rational decision.[175] Therefore, the purpose of information-justified regulation is to allow those parties that are disadvantaged the opportunity to "bargain intelligently."[176] "Unaided by government, few of us can incur the costs or gather the expertise necessary to judge reasonably the quality of doctors, the financial soundness of a stock issue, or the safety of drugs."[177]

The informational disparity renders the parties unable to correctly investigate the costs of contracting—to bargain intelligently. To understand the potential impact of being unable to make a pre-contractual investigation, one must start from the position that parties should only enter into contracts that will be profitable for them.[178] The parties can only make the decision to enter into a contract after some investigation into whether their costs will be high or low, or whether the arrangement will be profitable or not.[179] If the investigation determines that the costs will be high, then the parties probably will not contract.[180] If the investigation determines that the costs will be low, then the parties probably will contract.[181] However, the parties will not know the true costs of the contract until after it is entered into.[182] This is why adequacy of available pre-contract information is important. The better the information is, the more likely the investigation will yield the true results.

There are costs to incorrect investigation results. If the parties believe that the costs will be low, and they turn out to be high, then the parties either breach or pay the added costs.[183] If the costs are low, but the parties believed them to be high, then they would not have contracted and will lose out on the benefit that would have accrued to them by contracting.[184] These problems can be minimized if the relevant information is easily available, making the pre-contractual investigation possible or at least rendering it more likely to be correct. With this information, the parties can bargain intelligently.

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175. *See id.* (explaining that it is not the existence of an information disparity but rather the extent of the disparity which determines if regulation is proper).

176. *Id.*

177. *Id.* at 154.

178. *See* Richard Craswell, *Precontractual Investigation as an Optimal Precaution Problem*, 17 J. LEGAL STUD. 401, 406 (1988) (outlining the importance of information gathering in the contract formation process).

179. *See id.*

180. *See id.* at 413 (describing the consequences of an inaccurate test for high or low costs).

181. *See id.*

182. *See id.* at 406.

183. *See* Craswell, *supra* note 178.

184. *See id.*

Towards the end of making the information more available, there are three types of regulation that are justified by informational disparities: information regulation, performance standards, and specification standards.[185] The first and least intrusive technique is information regulation.[186] This technique involves the simple requirement that a certain amount of specific contract provisions must be disclosed.[187] This approach minimizes the government's interference and leaves the choice of how to use the information to individual market participants.[188] However, information regulation is not applicable when the necessary information cannot be conveyed to purchasers in a brief manner that is readily understandable.[189] The ability to convey sufficient information required to make a reasonable contract decision is a factor to consider when deciding whether the standards should be used to regulate the market.[190]

The second technique is the setting of performance standards, which specify an end to be achieved and leave the means to be selected by the individual firms.[191] This is beneficial because it allows the firm to choose the least expensive methods to attain a goal.[192] Moreover, "performance standards are usually cheaper to enforce, encourage technical change to achieve performance goals at less cost, and reduce the risk of sanction."[193] The third and most intrusive technique is the setting of specification standards, which specify the means as well as the ends to be achieved.[194] This technique is only used in the most severe cases since it removes all choices from the firms and actually discourages technological advancement.[195] The choice between the information regulations and the standards is partly a function of the severity of the

185. *See* STONE, *supra* note 142, at 161.

186. *See id.* (discussing how government disclosure of information minimizes government interference because it allows the consumer to make an informed choice, rather than making the choice for her).

187. *See id.* The most well known instance of information regulation is the Surgeon General's warning on cigarette packages. *See id.*

188. *See id.*

189. *See id.* at 161-62. This is the case with automobiles and prescription drugs, where the manufacturer cannot briefly convey to purchasers all of the information about the risks of the product, let alone in a manner that the average consumer could understand. *See id.*

190. *See* STONE, *supra* note 142, at 162 (discussing how both risk of harm and reversibility of the harm must be considered when deciding when to impose market standards or simply require information disclosure).

191. *See id.* at 163.

192. *See id.*

193. *Id.*

194. *See id.*

195. *See* STONE, *supra* note 142 (comparing the advantages and disadvantages of performance and specification standards).

risk and the irreversibility of the harm.[196] As this function grows, the setting of standards becomes more justified.[197]

Opponents of information-justified regulation usually believe that regulation is unnecessary because competition will increase quality, or at least provide what the consumer wants regardless of the information available.[198] This belief exists because many businesses rely on repeat customers and those customers will go elsewhere if they are not satisfied.[199] Even those who do not rely on repeat customers will increase their standards for fear that prospective customers will be deterred.[200] Opponents do note that regulation will only serve to increase the costs of deception and the likelihood of discovery, thus bolstering the effect that the free market alone would provide.[201]

The regulation of depository institutions is justified generally by ensuring consumer confidence and protection.[202] This justification compensates for consumer deficiencies in bargaining power and information. The bank customer cannot bargain with the bank to ensure her protection unless the bank has incentive to do so through federal regulation. Logic dictates that as long as depositors are attracted to a bank without a guarantee of protection, the bank will not make promises of security.

Most consumers suffer from lack of information about the soundness of their bank. Even if some information is available, most consumers lack the expertise to assess the information and use it to bargain intelligently. Therefore, the regulations ensure that the customers can bargain intelligently,[203] thereby protecting themselves. If protection of the individual consumer is not possible, regulations will protect the general group of consumers.[204]

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196. *See id.* at 162.

197. *See id.*

198. *See id.* at 160.

199. *See id.* (quoting RICHARD POSNER, REGULATION OF ADVERTISING BY THE FTC 5 (1973)).

200. *See* STONE, *supra* note 142, at 5.

201. *See id.* at 161 (describing the arguments in favor of regulation).

202. *See* BENSTON & KAUFMAN, *supra* note 65, at 3-4 ("Present reasons . . . include the following . . . 1. Concern for financial panics caused by bank failures . . . 2. Preventing disruptions to communities . . . when a bank's failure causes runs on other banks . . . 3. Protecting depositors . . . [and] 4. Fear that banks will take excessive risks because federal deposit insurance . . . remove[s] depositors' concerns about the risks taken.").

203. *See supra* notes 173-82 and accompanying text (discussing why regulation is justified based on informational deficiencies).

204. *See supra* notes 191-197 and accompanying text (explaining the setting of standards).

C. *Application to Internet Non-Banks*

1. Justifying Internet Non-Bank Regulation

This Note analyzes the propriety of regulating the Internet non-banks using the general model for industry regulation described above. The same questions must be asked about the Internet non-banks in order to determine the propriety of regulation. Only if the answers tend to show regulation is proper should the government seek to intervene. Specifically, if the unregulated market is underperforming, there is justified regulation that will cause the market to perform better than before, and if the benefits of the regulation outweigh its costs, then the Internet non-banks should be regulated.[205]

The first question to be answered is whether the unregulated non-banks are performing at a high level.[206] Because non-banks are just beginning to enter the market and because there have been no reported problems, this lack of information may lead to the deceptive conclusion of high performance. However, the Internet environment that the non-banks are operating in is very similar to the pre-Depression, unregulated environment of traditional depository institutions. The institutions in the pre-Depression environment were hardly operating at a high level. While from 1914 to 1929, there were 6,392 bank suspensions, that number climbed to 9,106 for the following four years.[207] "The series of banking panics in the United States culminating in the financial debacle of the Great Depression of the early 1930s are put forth as the kind of disasters that can be averted by means of bank regulation."[208]

As further evidence of the substandard operation levels of financial institutions without regulation, one can look to the recent savings and loan ("S&L") crisis. Between 1980 and 1982, two major pieces of legislation were passed by Congress that deregulated the S&Ls.[209] By 1984, the S&L industry had started to collapse.[210] Texas was the state hardest hit by the S&L crisis.[211]

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205. *See supra* note 144 and accompanying text (listing the relevant questions used in determining whether regulation of an industry is proper).

206. *See supra* note 144 and accompanying text.

207. COMM. ON BANKING AND CURRENCY, FEDERAL DEPOSIT INSURANCE ACT, H.R. REP. NO. 81-2564 (1950), *reprinted in* 1950 U.S.C.C.A.N. 3765, 3766.

208. BENSTON & KAUFMAN, *supra* note 65, at 3.

209. *See* Depository Institutions Deregulation and Monetary Control Act, Pub. L. No. 96-221, 94 Stat. 132 (1980) (removing interest rate ceilings, raising deposit insurance coverage from $40,000 to $100,000, and granting new powers to thrifts); Depository Institutions Act of 1982 (Garn-St. Germain), Pub. L. No. 97-320, 96 Stat. 1469 (1982) (eliminating limits on loan to value ratio and raising the maximum amount of assets that can be committed towards riskier activities, like commercial and consumer lending).

210. In 1984, Empire Savings of Mesquite, Texas failed, costing taxpayers approximately

S&L failures in Texas accounted for more than one-half of the total nationwide, creating an in-state recession where crude oil prices dropped by nearly fifty percent, office vacancies rose to over thirty percent, and the real estate market collapsed.[212] Finally, in 1989, Congress again regulated the S&L industry in hopes of reviving it.[213] One ex-Federal Reserve employee has strong feelings about the unregulated environment of non-banks:

> I believe that banking is inherently fragile and requires careful regulation. Absent any regulation, banks have the power to issue notes that are not backed by assets. They have the power to accept deposits and then invest the money unwisely or divert it to the banker's personal use. These powers are inherent in any company that performs banking functions. This will be true of the banks and funds transfer services sprouting up on the Net as it is true in traditional finance.
>
> If banking on the Internet takes place in an entrepreneurial, unregulated environment, then I predict that within 12 months we will see a bank failure of traumatic proportions. Some bank somewhere on the Net will not have enough real-world cash reserves to redeem its notes or to cash out its depositors. This will lead to a loss of confidence and "runs" on every bank on the Net. Commerce based on entrepreneurial banking will come to a halt.
>
> To avoid this scenario, somehow we have to integrate the innovative technology of the Net with traditional (or enhanced) mechanisms that promote safety and soundness.[214]

Since non-banks on the Internet have the potential to be high risk, fly-by-night operations, the unregulated market has the poten-

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$300 million. *See The S&L Crisis: A Chrono-Bibliography*, (visited Aug. 28, 1996) <http://www.fdic.gov/library/slchron.html>. By mid-1985, Ohio and Maryland were both experiencing S&L problems, creating bank holidays, and destroying the state deposit insurance funds. *See id.* In 1987, the Federal Savings and Loan Insurance Corporation, which insured deposits at S&Ls, was declared to be at least $3.8 billion insolvent. *See id.*

211. In 1988, the government disposed of 205 insolvent Texas S&Ls with assets of approximately $101 billion. *See id.*

212. *See id.*

213. *See* Financial Institutions Reform, Recovery, and Enforcement Act of 1989, Pub. L. No. 101-73, 103 Stat. 183 (1989) (abolishing the Federal Savings and Loan Insurance Corporation, switching coverage to the solvent FDIC, creating the Office of Thrift Supervision to oversee S&Ls, and imposing meaningful net worth and other regulations on S&Ls to help restore public confidence in the industry).

214. Arnold Kling, *Banking on the Internet (Would You Pay 20 Cents to Read the Rest of this Article?)* (1995), (visited Aug. 28, 1996) <http://www.homefair.com/homefair/banking.html>; *see also* Laster & Wenninger, *supra* note 108 (discussing the need for deposit insurance and reserve requirements for non-bank networks).

tial to be more inefficient than pre-Depression depository institutions. Under the current scheme, Internet Cash, Inc.[215] could take all the deposits (cash, checks, credit cards, etc.) it receives and do any number of things. For example, it could make risky investments hoping to increase its profit. Or, it could invest in long-term, illiquid, assets. It could also take its money and disappear completely. All of these outcomes would be detrimental to the depositor. In the first scenario, if the risky investments turned sour, Internet Cash, Inc. could lose more than its principal amount, thereby depriving the depositor of money. Under the second scenario, if Internet Cash, Inc. invested only in long-term assets, then they would not be in a position to pay cash for e-cash if necessary. All of the depositors' money would be tied up, and Internet Cash, Inc. would have no means to reimburse the depositor. The final situation, in which Internet Cash, Inc. disappears and depositors lose all their money, is also a possibility.

Even though it appears that these unregulated non-banks are now performing at an adequate level, the situation is ripe for a severe downturn. If the parallel drawn between the market environment of Internet non-banks and pre-depression depository institutions is a reality, then the worst is yet to come and the unregulated market will soon perform at a substandard level. Thus, the first requirement for subjecting non-banks to regulation would be fulfilled.[216] However, the government should not feel compelled to wait for history to repeat itself if all other requirements are satisfied.

2. *Analyzing Market Performance*

The next question to consider is whether the regulation is justified. The justification for regulation most applicable to non-banks on the Internet is the equity justification, based on contractual inefficiencies.[217] The equity justification, particularly because of disparities in bargaining power and information, is the justification most applicable to banks in general, as well as to non-banks.[218] The non-banks are in a very similar contractual relationship with their customers as are traditional banks.[219] Further, as was previously noted, this equity justification gets "shorthanded" to consum-

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215. For the purposes of this argument, Internet Cash, Inc. is a hypothetical non-bank Internet entity that accepts deposits in exchange for e-cash.

216. *See supra* notes 206-14 and accompanying text (discussing substandard performance).

217. *See supra* notes 158-60 and accompanying text (discussing the equity justification).

218. *See supra* notes 202-04 and accompanying text (explaining the disparities in bargaining power and information between the bank and the customer).

219. *See supra* notes 32-64 and accompanying text (describing various e-cash systems).

er confidence and protection when discussing traditional depository institutions.[220] To determine whether Internet non-bank regulation is justified, we must look at specific regulations as applied to traditional banks to determine whether those regulations are meeting the desired goal of consumer confidence and protection.

The balance sheet restrictions and deposit insurance that traditional financial institutions are subjected to are aimed primarily at consumer protection. Specifically, reserve requirements were established to ensure that banks would have adequate liquidity if consumers demand was excessive.[221] Capital requirements are used to ensure that banks can adequately setoff and absorb losses.[222] Investment restrictions are aimed at making sure that the bank is not taking unnecessary risks with its assets.[223] Finally, deposit insurance, possibly the most important of the bank regulations, was enacted to end bank panics and runs on deposits.[224] These techniques would have the same effect on non-banks and would serve to increase protection of the consumer's deposits.

Another type of regulation that traditional financial institutions must comply with are the many different consumer protection laws, mainly those involving disclosure and limited liability for unauthorized use.[225] As the system stands now, non-banks do not have to disclose any costs to the consumer; as a result, no standard methods of disclosure have been developed. Customers are not guaranteed sufficient information with Internet non-banks, as they are with chartered depository institutions. This limits their ability to make informed decisions about which non-bank to use. Further, there is no regulatory limiting of liability. The customer would be open to unlimited liability if someone gained access to her e-cash account. The liability limitations that are imposed on other types of financial transactions are designed to protect the consumer from this type of liability, since this was, and is, not being negotiated in private contract.[226] Again, these types of regulations could be imposed on Internet non-banks, supported by the equity justification. The informational disparities and unequal bargaining positions present here are exactly the type that justify regulation in the abstract.

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220. *See supra* notes 202-04 and accompanying text (discussing consumer confidence and protection as a justification for regulation of depository institutions).

221. *See supra* notes 85-94 and accompanying text (describing the required reserves).

222. *See supra* notes 78-84 and accompanying text (describing the capital requirements).

223. *See supra* notes 95-98 and accompanying text (describing limitations on investments).

224. *See supra* notes 65-75 and accompanying text (describing deposit insurance).

225. *See supra* notes 99-126 and accompanying text (explaining the different consumer protection laws to which traditional financial institutions are subjected).

226. *See supra* notes 108-112 and accompanying text (discussing limits on liability).

A final point to consider when determining whether the regulation of Internet non-banks is justified is the issue of consumer confidence, which is interwoven with safety and soundness. "As new forms of electronic money evolve, we need to ensure that participants have the same level of confidence in these new systems as they do in the present ones."[227] With the existing Internet non-bank system, consumers are at greater risk using non-banks on the Internet because these institutions are not subject to the same regulation and supervision as chartered banks.[228] Consumer confidence will grow as the safety and soundness of the institutions are guaranteed by regulation. This effect simply supports the position that regulation, of the type reviewed here, is justified for Internet non-banks.

The next question to consider is whether the regulated market will perform better than the unregulated market. One way to analyze this is to consider the alternative to regulation—a reliance on the free market to maintain an optimum operating system.[229] This system would rely on competition in the market to achieve these goals.[230] Most consumers using these non-banks will be expecting the same treatment that they receive from their current depository institutions. This treatment generally involves disclosure and limited liability. If consumers are not getting what they expect from one cyberbank, they may try others until they find acceptable terms. The first cyberbank to comply will garner the most customers. Eventually, all cyberbanks will comply in order to compete. The same argument applies to insured deposits and, to a lesser extent, to balance sheet restrictions. If one cyberbank has deposit insurance, every depositor will choose to keep money there rather than risking cyberbank failure elsewhere.

Competitive forces will not likely shape the market as previously discussed. Assuming that depositors cannot distinguish between the quality of non-banks, there will be no incentive for them to provide additional services. Therefore, the market will actually provide a lower quality product as each non-bank will not want to give any more than the next.[231] Of course, this assumes imperfect information, which would be the case in the absence of regulation.

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227. *Electronic Commerce Providers Give Congress Earful*, EFT REP., Aug. 2, 1995, *available on* WESTLAW, ALLNEWS database, 1995 WL 7502175.

228. *See* Laster & Wenninger, *supra* note 108.

229. *See supra* note 142 and accompanying text (discussing the presumption that the free market is the best system for achieving optimal results).

230. *See supra* notes 198-201 and accompanying text (discussing how competition will achieve the same goals as regulation).

231. *Cf.* George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q. J. OF ECON. 488 (1970) (discussing the incentive for sellers to market poor quality merchandise).

Therefore, it appears that the unregulated market will not achieve the important goals of consumer safety and confidence. The regulations discussed herein can achieve these goals for non-banks. Consequently, the regulated market for e-cash will perform better than the unregulated market.

3. Analyzing Costs, Benefits, and Other Concerns

The remaining question is a cost-benefit analysis.[232] One potential problem is that any efforts to regulate may actually destroy the progress that these non-banks have achieved. The Federal Reserve's members are concerned that any regulation may stifle the emerging industry.[233] If these non-banks are subjected to burdensome regulation, many of the companies may choose to leave the market rather than spend the effort to comply. While there is no empirical data to support this, it is a possibility. It is not known exactly how profitable these enterprises are. Supposing that these are not yet gold mines, the efforts to comply with oppressive or complicated regulation will deplete and may remove any profit margin that exists. This is true especially if non-banks gain profit mostly from their investments and not their fees. Regulation limiting their investment activities and requiring payment of deposit insurance premiums may be too costly for them to remain in business. Add to this the costs of complying with consumer protection disclosure laws and the result could be catastrophic. Since there are no guarantees that traditional, chartered financial institutions will enter the arena and fill the void left by departed non-banks, this emerging area of electronic commerce and e-cash may inevitably die.

Although these costs are huge considerations, the benefits still outweigh them. The risks to the consumers should not be ignored to enhance the profit margin of private enterprise. Therefore, the final requirement is satisfied and all of the elements are in place for regulation to be proper. However, there are other concerns to resolve before the government interferes with the e-cash market.

One of the primary problems with regulation is the lack of knowledge on the part of public officials.[234] Government officials do not know enough about the Internet to make good decisions regarding its regulation. The director of the Treasury's financial

232. *See supra* note 144 and accompanying text (describing the test to determine whether regulation is proper).

233. The Vice Chairman of the Federal Reserve Board has said that the Federal government has "not the slightest desire to inhibit the evolution of this emerging industry by regulation, nor to constrain its growth." *Electronic Payment Law Caution Urged*, L.A. TIMES, Oct. 12, 1995, at D3.

234. *See supra* note 143 and accompanying text.

crimes enforcement network pinned his reluctance to regulate on his lack of knowledge, admitting that "[w]e don't know enough yet to make good decisions."[235] Many other government officials are uneducated when it comes to activities on the Internet. A securities investigator in the North Carolina Secretary of State's office confessed that "[i]t's almost embarrassing how naive regulators are about the Internet."[236] The chairman of the House Banking monetary policy subcommittee admits that some of his colleagues "can barely read [their] E-mail."[237] Without the ability to understand what they are trying to regulate, officials are likely to enact laws which would lead to an end of the industry.

Some people are opposed to the idea of any government intervention and simply do not see the need for regulation. Those involved Internet users feel that cyberspace is a place separate from the real world and is only for them to regulate.[238] Cyberspace has a firmly entrenched culture which has relied "virtually exclusively for behavioral control on a common understanding of protocol rather than law. Its citizens have traditionally been extremely individualistic and suspicious of centralized authority."[239] These people probably believe that informal rules will keep these non-banks from taking advantage of other people using the Internet.

The aforementioned considerations should not be ignored when making the final determination. The regulations ought to be chosen wisely so as to not stifle the industry. However, these considerations do not override the appropriateness of specific regulation that will promote consumer safety and confidence.

D. Methods of Internet Non-Bank Regulation

Assuming that the elements justifying regulation of Internet non-banks have been satisfied, the next and possibly most important question is how to regulate them. The previous discussion has shown that many of the regulations that traditional financial institu-

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235. Laster & Wenninger, *supra* note 108.

236. Jared Sandberg, *On-Line: Regulators Try to Tame the Untamable On-Line World*, WALL ST. J., July 5, 1995, at B1.

237. Skidmore, *supra* note 1, at C3.

238. They have "[s]uch a strong sense of . . . community that they routinely refer to this world as 'cyberia,' and to themselves as 'citizens of cyberia,' or simply 'cyberians.'" Dunne, *supra* note 2, at 3.

239. *Id.* DigitaLiberty, an advocacy group, has taken this to the extreme:

> [W]e do believe that liberty can and will prevail in the virtual domains we are building on the Net and that national governments will be powerless to stop us . . . We believe that cyberspace will transcend national borders, national cultures and national economies. We believe that no one will hold sovereignty over this new realm because coercive force is impotent in cyberspace.

Mayer, *supra* note 16, at E1.

tions are subject to indeed fulfill the goals of consumer safety and confidence. Therefore, there is little need to develop new regulations. Some slight modifications may be necessary because the non-banks are different organizational entities.

The government has already tried to exert some control over Internet non-banks. In May, 1995, the Office of the Comptroller of the Currency ("OCC") warned First Bank of Internet, based in Des Plaines, Illinois, that it could not take deposits without first obtaining a bank charter and qualifying for deposit insurance.[240] This appears to be one of the first conflicts between a non-bank on the Internet and the federal government's regulators. As can be seen here, the OCC's approach to these institutions is to treat them the same as any other deposit-taking institution—require a charter and deposit insurance and subject them to all the same regulations. This may or may not be the proper approach to this unique problem.

The approach taken by OCC was the easiest and may be the best solution. One author stated that "new laws are rarely needed. The rules of computing and exploring cyberspace are the same rules that governed society before home computers became as common as espresso machines: Don't steal, Don't copy other people's work."[241] In this situation, new laws and regulations also may not be needed. As discussed previously, the concerns many people have with non-banks on the Internet are the same as those for existing financial institutions: deposit runs, illiquidity, and risky behavior.[242] If the current banking regulations meet these concerns for regular banks, then there is no reason not to apply them to Internet non-banks. Further, regulators are comfortable and confident in applying and enforcing these regulations. If the laws regulating regular banks and Internet non-banks are different, regulators will have to learn and apply a whole new set of unfamiliar guidelines.[243]

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240. *See "Phantom" Cyberbanks Pose Laundering, Tax Evasion Threat, supra* note 127.

241. *See* Marjorie Lambert, *Information Highway Patrol—Pirates, Peeping Toms and Bandits are Just a Few of the Criminals who Lurk on the Internet*, SUN-SENTINEL (FT. LAUDERDALE), May 28, 1995 at 1G.

242. *See supra* notes 65-69 and accompanying text.

243. As one commentator has stated:

> Agents of the Federal Bureau of Investigation specifically assigned to deal with cases of computer crime [said] that while the Bureau is beginning to feel confident in dealing with the more typical white collar crimes, there is still a sense among agents that they are 'totally lost' when it comes to crimes related to computers and computing. Not only are agents unsure of how to go about proving an individual has committed a crime, they are unsure of how to establish that a crime has even been committed.

Dunne, *supra* note 2, at 9 n.21.

Some of the balance sheet restrictions may have to be changed to make sure that the regulations are meeting their goals without imposing extraordinary costs on these Internet non-banks. The regulators would have to realize that non-banks are not institutional entities in the same sense as Citicorp or Manufacturer's Hanover. Non-banks are, for now, private enterprises serving a small financial niche.

The question is whether simple information regulation or the more intrusive standard-setting technique is required.[244] This decision, generally, is made on the basis of an evaluation of the risk and the reversibility of the harm that could stem from the entity.[245] In this case, the risk of non-bank depositors losing their accounts and causing financial panic through the Internet is extremely large and irreversible. Therefore, standards would be applicable in this case. Since the risk is so great, the lesser performance standards would not be applicable. However, the balance sheet restrictions and deposit insurance of traditional banks are specification standards that would be applicable to these non-banks

The capital requirement could probably be lowered and still protect the interests of the public and the depositor. These Internet non-banks are not presently engaging in the loan business. Therefore, there would be no loan losses to write off against capital. Consequently, these non-banks may not need as large a capital requirement as institutions engaging in loan transactions. Further, the $100,000 requirement may be too high because it would unreasonably discourage entry into the field.[246] A more reasonable and adequate requirement would be to use the $50,000 requirement that is used for smaller populations.[247] Fifty thousand dollars would probably be enough cushion against the types of losses that non-banks would suffer—likely to be only operating losses, not larger, loan losses—and would not unreasonably restrict access to this market.

Alternatively, one could look at the $100,000 or $200,000 requirement, which would possibly restrict access to only the established companies, as beneficial. This requirement could eliminate the fly-by-night companies looking to make a quick buck, like the

244. *See supra* notes 185-97 and accompanying text (describing the different regulatory techniques).

245. *See supra* notes 196-97 and accompanying text.

246. In actuality, internet non-banks would probably be subject to the $200,000 requirement because the Internet has more than 50,000 users (population). *See supra* note 79 (discussing how the capital requirement varies depending on the population where the financial institution is formed).

247. *See id.*

hypothetical Internet Cash, Inc.[248] If a company is going to raise that much capital, it could be inferred that the company is in the market for the long term and will make every effort to be a responsible institution. This would benefit the public and the individual depositors.

Regulators should choose to lower the required capital amount, as applied to the non-banks. As was discussed earlier, regulation at this juncture needs to applied carefully, balancing the interests of the public with the desire to not limit the entrepreneurial spirit of the Internet. In this case, the high capital requirement will most likely unreasonably restrict access to this market and would leave the field open only to the established institutions. However, the established institutions may not have the desire or expertise to enter this market and the result would be the demise of cyberbanking.

Minimum reserve requirements should be applied to these internet non-banks as is done with traditional depository institutions. The main function of reserve requirements is to ensure liquidity. This could be very important for non-banks because they are not, in most cases, experienced bankers who know how to forecast cash needs. The reserve requirements would help ensure that non-banks are managing their deposits safely. If any change is required in this regulation, it may be to require more than the three percent currently required.[249] These institutions could be more likely to manage their assets in a risky manner. A higher reserve requirement would lower this risk because less of the non-bank's assets could be used in high risk investing, thus putting a lower percentage of the asset pool at risk. However, it would be dangerous to lower this proportion to a level where the profit potential is removed since a large source of profit from a non-loan institution is derived from investing excess assets. Taking away too much of the profit motive will discourage entrepreneurs from entering the field.

The investment limitations would have to remain intact to ensure that Internet non-banks are not exchanging too much risk for the promise of huge gains. Requiring non-banks to invest in only investment grade bonds and no equity securities will constrain any temptation that non-bank management could have to trade return for risk.[250] As was seen with the Internet Cash, Inc. example, management's investment activities can cause huge losses for

248. *See supra* note 215 and accompanying text.

249. *See supra* note 89 and accompanying text.

250. *See supra* notes 95-98 and accompanying text (describing investment limitations).

depositors.[251] Only by limiting these activities can regulators guarantee the safety of consumer deposits.

Of vital importance is the requirement that non-banks maintain deposit insurance. Deposit insurance is probably the most important element of consumer confidence. There is no reason to exclude non-banks from this requirement. Assuming that these institutions are "engaged in the business of receiving deposits"[252] they will be eligible for deposit insurance.[253] Although the premiums will cut into profit for non-banks, the importance of deposit insurance far outweighs its costs. Additionally, deposit insurance will probably increase deposits at these non-banks because consumer confidence will increase. Further, the requirements that deposit insurance imposes on the depository institution will also serve to ensure the safety of the institution.

Some of the other areas of consumer concern may not need the strict specification standard, as the risk of harm may not be as large. The issues of disclosure involve a lesser degree of risk than the internal operation controls. Unlike bank failure, a consumer error may be reversed. Therefore, this concern can probably be satisfied with information regulations. Information regulations in the traditional setting generally require disclosure of certain information.

These non-banks should have to comply with the disclosure consumer protection laws. Although the transactions that these non-banks engage in are not exactly credit, EFT, or normal deposits, some of the disclosure laws should apply. Internet non-banks should be required to disclose all costs (opening, transaction, etc.) at the time of inception. This is similar to both the credit[254] and deposit account[255] requirements. Even EFTs are required to disclose all of the fees in advance.[256] Regulators should want to ensure that consumers know, up front, all of the associated costs of dealing with a particular company.

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251. *See supra* note 215 and accompanying text.

252. Deposits are defined as "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 obliged to give credit . . . to a commercial, checking, savings, time, or thrift account." 12 U.S.C. § 1813(l) (1994). EFT payments have also been classified as deposits. *See* FDIC v. European American Bank & Trust, 576 F. Supp. 950, 956 (S.D.N.Y. 1983). Although the formal definition requires the involvement of a "bank or savings association," the non-banks' accounts satisfy all of the other requirements and would probably be able to apply for deposit insurance.

253. *See supra* note 75 and accompanying text (discussing the six different factors the FDIC analyzes when deciding whether to grant coverage to an institution).

254. *See* 12 C.F.R. § 226.6 (1994) (discussing items the creditor must disclose to the consumer).

255. *See supra* notes 122-26 and accompanying text.

256. *See supra* note 104 and accompanying text.

In addition, Internet non-banks should be required to provide periodic statements that detail the transactions made during a specified period. EFTs[257] and credit transactions[258] both require some sort of periodic statement or transaction record. Although deposit accounts do not require a periodic statement, the regulations do provide for what the statement must include if one is provided.[259] In all cases, the regulators seem to believe that it is good policy to provide the customer with a detailed record of what transactions have been made in her account. The record provides consumer knowledge and reduces fraud and unauthorized use of the customer's account. If the customer does not receive a statement she may never know if any unauthorized transactions are taking place.

Requiring the issuance of a statement shifts the onus to the customer to detect any unauthorized transactions in her account.[260] One possible modification to this provision could be to allow the statement to be provided on-line.[261] Such a modification will reduce the burden on the non-bank since it would not require any additional postage and copying expense. It may also remove the consumer's burden of opening a mailed statement; instead, she will examine her statement on-line.

Internet non-banks should be required to limit the customer's liability for unauthorized transactions in some manner. However, determining the extent of this limit is difficult. Limiting liability too much creates a risk for the non-bank, thereby threatening profits. On the other hand, regulators should be wary of allocating the risk to the consumer. Non-banks will not find this an attractive option either because customers will have no reason to use e-cash. Instead, customers may actually prefer to use a credit card because of the accompanying loss limitations. If customers have an e-cash account and someone uses it, they will bear the full risk of loss. A system of limited liability similar to that for EFTs is preferable. This limits liability to only fifty dollars for the no-fault unauthorized transactions. However, as the customers' negligence increases, the limits on liability decrease.[262] This will satisfy both the consumers and non-banks.

The best way to regulate non-bank entities accepting deposits on the Internet in exchange for e-cash is to modify the existing

257. *See id.*

258. *See supra* note 112 and accompanying text.

259. *See supra* note 123 and accompanying text.

260. *Cf.* U.C.C. § 4-406 (1990) (requiring the customer to "exercise reasonable promptness" in examining the statement or be barred from asserting some claims against the bank).

261. *See supra* note 56 and accompanying text (describing DigiCash's online statement).

262. *See supra* notes 108-12 and accompanying text.

regulations. The regulators do not possess enough knowledge about the Internet and cyberbanks to choose regulation that will strike the proper balance between the competing concerns for the public and the private enterprise.[263] For this reason, Congress should enact new legislation covering these entities in order to consolidate the applicable laws. Substantively, they should mimic the laws that regulate traditional depository institutions.

CONCLUSION

As Internet non-banks change from mere curiosities to mainstream commerce facilitators, the potential for financial crisis changes from probable to imminent. Federal regulation of cyberbanking appears to be imminent and well justified. Regulation may benefit consumers as well as Internet non-banks. Experience has proven that regulation of traditional financial institutions will increase security, safety, and most importantly, consumer confidence. Regulation of non-banks will provide the same benefits.

There are potential benefits to be gained from Internet non-bank regulation. First, people will feel more secure using e-cash to conduct business over the Internet, thus increasing its popularity and productivity. Consumer confidence is needed in order to convince the existing Internet users to conduct business with e-cash rather than using another alternative. Second, as more people conduct business over the Internet using e-cash, cyberbank profits will increase. Eventually, non-banks will reach an economy of scale in producing the e-cash which will result in lowered expenses and increased profits. Third, the increased profits will cause more companies to enter the market. The resulting competition will cause existing cyberbanks to operate more efficiently and will result in lower prices for consumers. Proper regulation will protect the public and foster the growth of non-banks and e-cash commerce on the Internet.

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263. *See supra* notes 232-39 and accompanying text.