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Article

Legal Aspects of Internet Securities Transactions

Henrique de Azevedo Ferreira França

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I. INTRODUCTION

1. As the end of the century approaches, constant technological development and the widespread use of computers has affected many aspects of life and society.[1] Computers, such as heart machines, directly affect human life, others provide amusement, and still others influence key sectors of our economy, such as the financial markets.[2] The phenomenon known as globalization has caused nations and their financial markets to become closely interconnected.[3] This

† LL.B., 1989, Catholic University of São Paulo, Brazil; LL.M., 1998, Boston University School of Law. Mr. França is an associate at Paul, Weiss, Rifkind, Wharton & Garrison in New York and practices securities and corporate law with Latin-American clients. Mr. França is originally from São Paulo, Brazil.

[1] Computers are now present in 30 million American households; between 1996 and 1998, the percentage of American households with computers increased from 40% to 43%. *See* Daniel Everett Giddings, *An Innovative Link Between the Internet, the Capital Markets, and the SEC: How the Internet Direct Public Offering Helps Small Companies Looking to Raise Capital*, 25 PEPP. L. REV. 785, 797 n.89 (1998) (citing Peter Burrows et al., *Cheap PCs*, BUS. WK., Mar. 23, 1998, at 28).

[2] *See* Mikael Havluciyan, Comment, *Patents Come to the Rescue of Special Effects: Why Patents Are an Essential Element in the Protection of Computer-Generated Special Effects*, 18 LOY. L.A. ENT. L.J. 101, 101 (1997) ("Today, few movies are made without the aid of computer graphics and computer-generated imagery."); Mark Sneddon, *The Effect of Uniform Commercial Code Article 4A on the Law of International Credit Transfers*, 29 LOY. L.A. L. REV. 1107, 1110 (1996) (discussing the use of electronic credit-transfer systems for "high-value domestic and international payments"); Barbara J. Tyler, *Cyberdoctors: The Virtual Housecall–The Actual Practice of Medicine on the Internet Is Here; Is It a Telemedical Accident Waiting to Happen?*, 31 IND. L. REV. 259, 263 (1998) (discussing the use of computers to deliver medical information to patients without local access to advanced medical specialists).

[3] "[G]lobalization refers to processes or phenomena *that undermine* the ability of the sovereign state to control what occurs in its territory . . . . '[T]he integration of financial markets on a global basis is the paradigm example . . . .'" David P. Fidler, *The Globalization of Public Health: Emerging Infectious Diseases and International Relations*, 5 IND. J. GLOBAL LEGAL STUD. 11, 14 (1997) (quoting Gordon R. Walker & Mark A. Fox, *Globalization: An Analytical Framework*, 3 IND. J. GLOBAL LEGAL STUD. 375, 377 (1996)).

interconnectedness is transforming economies and societies.[4] Securities markets face particularly challenging changes.[5] In search of higher rates of return, investors electronically transact billions of dollars in securities trades across borders all over the world in seconds.[6]

2. These developments are putting new pressures on emerging markets, where the volume of cross-border securities transactions has risen rapidly. For instance, although they are not comparable in size or sophistication with the American markets,[7] the emerging capital markets of Brazil are growing at a very steady pace.[8] Accordingly, Brazil should enact new regulations to govern the development of new securities products and provide an adequate legal framework for controlling or harnessing the intense interest in Internet securities trading. For an emerging market like Brazil, more detailed securities legislation can help narrow the gaps between its markets and those of developed countries.[9] An adequate legal framework, therefore, may help attract more investors to emerging markets.[10]

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[4] Computers have played a key role in the impact of globalization on "financial markets, information, and culture." Fidler, *supra* note 3, at 15.

[5] *See* Stephen G. Martin, *The Convergence of Securities Law and the Internet*, FLA. BAR J., Jan. 1997, at 46, 46 (noting that the Internet has "begun to affect the financial and securities industry").

[6] *See* Sarah Jane Hughes, *A Call for International Legal Standards for Emerging Retail Electronic Payment Systems*, 15 ANN. REV. BANKING L. 197, 201-2 (1996) ("The world's major funds transfer systems move between $1 and $3 trillion daily.").

[7] *See* Charles Vaughn Baltic, III, Note, *The Next Step in Insider Trading Regulation: International Cooperative Efforts in the Global Securities Market*, 23 L. & POL'Y INT'L BUS. 167, 168 n.6 (1992) ("Market capitalization of U.S. equities was $2.6 trillion at the end of 1986, representing forty-three percent of the world's stock market capitalization."); Arnold Wald, *O Mercado de Capitais no Brasil*, 71 REVISTA DE DIREITO MERCANTIL, INDUSTRIAL, ECONÔMICO E FINANCEIRO 47.

[8] *See* Peter R. Kingstone, *Political Continuity Versus Social Change: The Sustainability of Neoliberal Reform in Brazil*, 4 NAFTA: L. & BUS. REV. AM. 38, 51 (1998) (showing that Brazil's foreign capital inflows increased from $17.7 billion in 1992 to $78.9 billion in 1996); s*ee also* Agência Estado [State Agency], *Moeda, Crédito e Mercado de Capitais* [*Currency, Credit and Stock Market*] (last modified Aug. 7, 1996) <http://www.agestado.com/proj_com/cbmm/7_3.htm>.

[9] *Cf.* Cheryl W. Gray & William W. Jarosz, *Law and the Regulation of Foreign Direct Investment: The Experience from Central and Eastern Europe*, 33 COLUM. J. TRANSNAT'L L. 1, 6 (1995) (discussing the need for much more substantial foreign investment to restructure industry and turn around the economies in Central and Eastern Europe); Nelson Eizirik, *A Urgente Reforma da Lei 6.385/76*, 98 REVISTA DE DIREITO MERCANTIL, INDUSTRIAL, ECONÔMICO E FINANCEIRO 58 (1995).

[10] *See* Note, *Protection of Foreign Direct Investment in a New World Order: Vietnam–A Case Study*, 107 HARV. L. REV. 1995, 1995 (1994) ("Among measures that attract [foreign direct investment], an

3. In light of the Internet's evolution as a trading medium, developed countries should also reevaluate their securities laws, which should be flexible enough to adapt to technological advances.[11] In addition, securities laws should require increased market transparency, as on-line trading volumes increase.[12] New technology may render current regulations less appropriate.[13] The Internet, especially the portion known as the World Wide Web ("Web"), is helping to increase these regulatory gaps.[14] Since the early 1990s, use of the Internet has exploded and predictions for the year 2000 expect some 100 million users.[15] The Web has become

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essential step is the establishment of a sound legal framework that can assure a stable investment environment and enhance investors' confidence.").

[11] *Cf.* 15 U.S.C. § 78k-1(a)(1)(B) (1994) (stating that "[n]ew data processing and communications techniques create the opportunity for more efficient and effective [national securities] market operations").

[12] *See* WebFinance Inc., *InvestorWords* (last modified Aug. 23, 1998) <http://www.investorwords.com/> (defining "transparent market" as "[a] market in which current trade and quote information is readily available to the public"); *see also Debt Issuance and Investment Practices of State and Local Governments: Hearings Before the Subcomm. on Capital Mkts., Sec., and Gov't Sponsored Enter. of the Comm. on Banking and Fin. Servs.*, 104th Cong. 244, 279 n.49 (1995) (testimony of Paul S. Maco, Director, Office of Municipal Securities, SEC) ("In a completely transparent market, all market participants have equal and immediate access to all quotations, including the size of the quotations, and to reports of prices and all volumes in all trades effected in the market."); Mulan Ashwin, *Capitalism in Transition: The Role of International Law*, 89 AM. SOC'Y INT'L L. PROC. 103, 109 (1995) (discussing the importance of market transparency for the efficient allocation of resources and investor confidence).

[13] *See* John C. Coffee, Jr., *Brave New World?: The Impact(s) of the Internet on Modern Securities Regulation*, 52 BUS. LAW. 1195, 1198-1200 (1997) ("[T]he Internet . . . seems likely to hasten the obsolescence of legal concepts [such as solicitation, gun jumping, and the distinction between 'exchanges' and 'dealers'] upon which federal securities regulation has pivoted for the last sixty-odd years, but which were clearly premised on a paper-based information technology."); Martin, *supra* note 5, at 48 ("[M]any of the current securities laws are not suited to cope with the technologies available in today's world. The 1933 and 1934 Securities Acts didn't contemplate trading markets other than the traditional systems. Moreover, the traditional markets are, to some extent, self-regulating.").

[14] *See, e.g.*, International Organisation of Securities Commissions (IOSCO), *Report on Enforcement Issues Raised by the Increasing Use of Electronic Networks in the Securities and Futures Field* (last modified Nov. 4, 1998) <http://www.iosco.org/docs-public/1997-report_on_enforcement_issues-document03.html> (discussing the characteristics of Internet "information dissemination that can aid the perpetration of fraud"). For a detailed description of the Web and its purpose and operation, see ACLU v. Reno, 929 F. Supp. 824, 836-38 (E.D. Pa. 1996), *aff'd*, 521 U.S. 844 (1997).

[15] *See* Gary Steinberg, *Jobs Associated with the Internet*, OCCUPATIONAL OUTLOOK Q., June 22, 1997, at 3, 3 (noting that about 60 million people currently use the Internet and that this number should increase to 100 million by the year 2000).

a growing and important environment for trading securities, an environment that lacks national boundaries.[16]

4. This Article explores some possible ways of transacting securities business over the Internet and explores the consequences arising from this process. If a Brazilian issuer conducts an initial public offering ("IPO") over the Web in Brazil, what laws should apply? How much must such an issuer disclose, considering the potentially large audience of unsophisticated investors? Which forum should have the power to decide conflicts arising from Internet securities offerings?

II. THE INTERNET

5. The Internet is essentially an international computer network.[17] This network has become so powerful and so comprehensive that it has truly become "the first global forum and the first global library."[18] How can something that lacks a designated leader or any recognizable governing structure be so successful? One answer is that the Internet, "for the first time in history, [enables] unlimited numbers of people . . . to communicate with ease."[19] Earlier this century, radio and television provided people around the world with easy access to common information and cultural influences; the Internet connects people even more directly. The Internet is both a conduit for information and home to "information-content producers and publishers."[20]

6. All in all, the Internet is a very powerful means of communication. After acquiring basic computer equipment, anyone can access information via the

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[16] *See* Coffee, *supra* note 13, at 1195 ("It is now a trite commonplace that the advent of the Internet will in time revolutionize securities regulation . . . . [T]here is a potential global market that can be accessed at very low cost.").

[17] *See, e.g.*, 47 U.S.C. § 230(e)(1) (Supp. 1998) ("The term 'Internet' means the international computer network of both Federal and non-Federal interoperable packet switched data networks."); Lockheed Martin Corp. v. Network Solutions, Inc., 985 F. Supp. 949, 951 (1997) ("The Internet is an international 'super-network' connecting millions of individual computer networks and computers."); Lars Davies, *The Internet and the Elephant*, 24 INT'L BUS. LAW. 151, 151 (1996) (noting that the Internet is "a growing group" of interconnected local, regional, and national networks).

[18] HARLEY HAHN & RICK STOUT, THE INTERNET COMPLETE REFERENCE 3 (1994).

[19] *Id.* (suggesting that, through direct Internet contact with strangers, "we are finding it is in our nature to be communicative, helpful, curious, and considerate").

[20] HENRY H. PERRITT, JR., LAW AND THE INFORMATION SUPERHIGHWAY: PRIVACY, ACCESS, INTELLECTUAL PROPERTY, COMMERCE, LIABILITY 11 (1996).

Internet.[21] A person with such equipment can similarly spread information with almost unlimited reach.[22] The easy transmission of information via the Internet challenges the concept of national borders; *even* in countries with little political freedom of speech, the Internet "voice" can prevail.[23] The Internet's potential for transforming the business world should not be underestimated. The securities business has already faced unprecedented changes since the introduction of Internet securities transactions.[24]

III. THE U.S. SECURITIES FRAMEWORK

7. In the United States, there are four fundamental federal securities laws: the Securities Act of 1933[25] ("Securities Act"), the Securities Exchange Act of 1934[26] ("Exchange Act"), the Investment Advisers Act of 1940, and the Investment Company Act of 1940. Each state has securities laws, as well.[27] Both the federal and state laws have registration and other requirements with which issuers must comply. U.S. law defines the term "security" broadly, as a long list of various types

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[21] *See, e.g.*, Lee S. Rosen, *Cruising the Information Highway*, FAM. ADVOC., Spring 1995, at 6, 6-7 (describing how to "journey beyond your desktop" using a commercially available modem and connection service).

[22] *See, e.g.*, Andrew Sebok, *What's All This Fuss About the Internet*, BRIEF, Summer 1996, at 8, 8-9 (introducing lawyers to the "basic concepts" of the Internet).

[23] *See* Gary Andrew Poole, *Despots Find Dissidents on Internet Hard to Muzzle*, USA TODAY, Jan. 26, 1999, at 15A (describing largely unsuccessful efforts in China, Liberia, Mexico, Singapore, and Zambia to suppress Internet dissidents); Alan N. Sutin, *Roadblocks Stall Electronic Commerce: Legal Obstacles Hinder International Trade in Cyberspace*, N.Y. L.J., July 13, 1998, at S6; *but cf.* David L. Marcus, *Nations Strive to Limit Freedom of the Internet*, BOSTON GLOBE, Dec. 28, 1998, at A1 (addressing foreign limitations on Internet access, particularly in China).

[24] *See* Rebecca Buckman, *Explosion of Internet Trading Accounts Makes Big Brokerage Firms Go On-Line*, WALL ST. J., Feb. 9, 1998, at B71 ("Some of Wall Street's biggest brokerage firms . . . are gearing up to enter a business they once played down: on-line trading."); Joseph Kahn, *Schwab Lands Feet First on Net*, N.Y. TIMES, Feb. 10, 1999, at C1 (describing a discount broker's plan to "use the Web to challenge – more directly than ever before" – the large, full-service brokerage firms).

[25] Securities Act of 1933 §§ 1-28, 15 U.S.C. §§ 77a-77z-3 (1994 & Supp. 1998).

[26] Securities Exchange Act of 1934 §§ 1-36, 15 U.S.C. §§ 78a-78mm (1994 & Supp. 1998).

[27] *See* Securities Act of 1933 § 18, 15 U.S.C. § 77r (expressly permitting state securities commissions to exercise jurisdiction "over any security or any person"); *see also, e.g.*, UNIF. SEC. ACT § 301, 7B U.L.A. 166 (1985 & Supp. 1998) (providing model state registration requirements).

of investment interests.[28] As construed, the term "security" may reach essentially any transaction that could harm any American investor.[29] Section 4 of the Securities Act, however, exempts certain transactions.[30] The use of broad definitions gives the Securities and Exchange Commission ("SEC") much leeway to protect investors from financial loss. Such broad definitions may be imprecise, however, and may result in the uneven administration of justice.[31]

8. The Internet provides investors with a cheap and fast way to buy and sell securities.[32] Investors have access to multiple investment opportunities at a much

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[28] Securities Act of 1933 § 2(a)(1), 15 U.S.C. § 77b(1) (defining "security," in part, as any note, stock, treasury stock, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, . . . fractional undivided interest in . . . mineral rights, . . . or, in general, any interest or instrument commonly known as a 'security'. . . .").

[29] *See, e.g.*, SEC v. Variable Annuity Life Ins. Co. of Am., 359 U.S. 65, 76-77 (1959) (noting that the term "securities" is "very broadly defined"). "The emphasis is on disclosure; the philosophy of the [1933] Act is that full disclosure of the details of the enterprise in which the investor is to put his money should be made so that he can intelligently appraise the risks involved." *Id.* *See also* Jonathan E. Shook, Note, *The Common Enterprise Test: Getting Horizontal or Going Vertical in* Wals v. Fox Hills Development Corp., 30 TULSA L.J. 727, 738 (1995) ("Congress broadly defined the term 'security' in the 19[3]3 Act in order to protect the public by preventing crooked promoters from eluding the provisions of the securities laws . . . .").

[30] Securities Act of 1933 § 4, 15 U.S.C. § 77d.

[31] *See, e.g.*, Robert R. Joseph, Comment, *Should Interests in Limited Liability Companies Be Deemed Securities?: The Resurgence of Economic Reality in Investment Contract Analysis*, 44 EMORY L.J. 1591, 1594, 1596 (1995) (noting that the Court's "flexible, substantive approach" has "led to a great deal of confusion surrounding the definition of a 'security,'" and remarking that "[t]he need for an open-ended definition that would include unusual and unforeseen investment instruments has been continually at odds with the desire to avoid unnecessary application of the securities laws"); *cf.* Bradford R. Turner, Comment, Brown v. Enstar Group, Inc.*: The Eleventh Circuit Opens the Door for Expansive Controlling Person Liability Under the 1933 and 1934 Securities Acts*, 32 GA. L. REV. 323, 332-34 (1997) (noting that the broad definition of "control" in the 1934 Act has led to "considerable inconsistency" in judicial results); Luiz Gastão Paes de Barros Leães, *O Conceito de "Security" no Direito Norte-Americano e o Conceito Análogo no Direito Brasileiro*, 14 REVISTA DE DIREITO MERCANTIL, INDUSTRIAL, ECONÔMICO E FINANCEIRO 41, 43.

[32] *See* Statement of the Commission Regarding Use of Internet Web Sites to Offer Securities, Solicit Securities Transactions or Advertise Investment Services Offshore, Securities Act Release No. 33-7516, Exchange Act Release No. 34-39779, 63 Fed. Reg. 14,806, 14,813 (Mar. 23, 1998) ("Today, . . . the technology exists for investors to obtain real-time information about trading on foreign markets from a number of different sources, and to enter and execute orders on those markets electronically from the United States.") [hereinafter Use of Internet Web Sites]; David M. Bartholomew & Dena L. Murphy, *The Internet and Securities Regulation: What's Next?*, 25 SEC. REG. L.J. 177, 178 (1997)

lower cost than in traditional security transactions.[33] In seconds, an Internet security transaction may cross many national boundaries.[34] The Internet thus facilitates "international" securities transactions, or transactions in which the parties are of different nationalities. Key aspects of conduct significantly related to these transactions, such as the location of the offer or the execution of the transaction, can occur in a nation other than that of the parties and have a substantial effect in that nation.[35]

A. Complying with U.S. Securities Regulations On-Line

1. The Spring Street IPO Case

9. In February 1995, the Spring Street Brewing Company made "what may have been the first-ever" Internet direct IPO.[36] The company "posted its prospectus on the Internet and completed its own IPO without the assistance of a broker-

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(noting that the electronic securities trading has proved so efficient that at least one broker has begun waiving commissions for some large electronic trades).

[33] *See, e.g.*, Andrew Osterland, *IPOs in Cyberspace*, FIN. WORLD, Apr. 22, 1996, at 25 (contrasting $18 fee charged by an on-line service, Ceres Securities, with the $375 fee charged by a traditional broker, Merill Lynch, for the same transaction); *Ameritrade Inc., Compare Us* (visited Feb. 1, 1999) <http://www.ameritrade.com/fhtml/advantages2.fhtml> (offering Internet trades at $8 and broker-assisted trades at $18 per minimum order of 1,000 shares).

[34] *See, e.g.*, Use of Internet Web Sites, *supra* note 32, at 14,807 ("Information posted on Internet Web sites concerning securities and investments can be made readily available without regard to geographic and political boundaries); *cf.* Robert A. Prentice, *The Future of Corporate Disclosure: The Internet, Securities Fraud, and Rule 10b-5*, 47 EMORY L.J. 1, 81 (1998) (urging caution and accuracy in internal e-mail about a firm's prospects because the "Internet's potential for lightning-quick distribution of a communication to a wide audience" may expose a firm to liability under the securities laws).

[35] *See* RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 416 (1987) (defining factors necessary to assert United States jurisdiction over international securities transactions); RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 188 (1971) (determining governing law in absence of contracting party forum selection).

[36] *See, e.g.*, Bartholomew & Murphy, *supra* note 32, at 178 & n.5 ("The IPO was made through an official circular dated February 6, 1995, that was linked by Spring Street to its Web site. Anyone interested in the offer could download the circular . . . and could email the attached subscriptions directly to the company."); Kenneth W. Brakebill, *The Application of Securities Laws in Cyberspace: Jurisdictional and Regulatory Problems Posed by Internet Securities Transactions*, HASTINGS COMM. & ENT. L.J. 901, 905 (1996); Coffee, *supra* note 13, at 1202 (noting that in March 1996, Spring Street "completed the first online public offering . . . without . . . investment banking firms.").

dealer."[37] The offering was implemented according to Regulation A of the Securities Act.[38] Regulators reacted quickly to the Spring Street offering, and, almost immediately, the SEC issued an interpretive letter regarding the issuer meeting delivery requirements on-line.[39]

2. Registration and Exemption

10. Public offerings of securities must ordinarily comply with the Securities Act's registration requirements.[40] Compliance with these regulations can be rather time-consuming and expensive, but exemptions in the Securities Act allow a public offering to proceed without the customary registration requirements if the offering is for a relatively small amount of money.[41] For example, Regulation A allows an exemption, known as the "small business initiative,"[42] for securities offerings of less than $5 million made over a period of twelve months.[43] Similarly, many states provide an exemption for offerings that do not exceed $1 million in any twelve-

[37] Bartholomew & Murphy, *supra* note 32, at 186.

[38] *See* Richard Raysman & Peter Brown, *Securities Offerings Over the Internet*, N.Y. L.J., June 10, 1997, at 3 ("Spring Street did not attempt a full-blown registered public offering but, instead, made its offering directly pursuant to Regulation A, soliciting investors through the use of an on-line prospectus."); Brakebill, *supra* note 36, at 905; *see generally* Regulation A, 17 C.F.R. § 230.236–.263 (1998) (simplifying filing requirements for small companies by allowing conditional exemptions from registration under the Securities Act for public offerings up to $5 million).

[39] Brown & Wood, SEC No-Action Letter, [1994-1995 Decisions Binder] Fed. Sec. L. Rep. (CCH) ¶ 77,000, at 78,841 (Feb. 17, 1995) (permitting digital delivery under specific procedures to protect investors); *see also* Use of Electronic Media for Delivery Purposes, Securities Act Release No. 33-7233, Exchange Act Release No. 34-36345, 60 Fed. Reg. 53,458, 53,459 n.10 (Oct. 13, 1995) (permitting "continued reliance on the generally more stringent requirements of the *Brown & Wood* letter," even though the requirements have been relaxed) [hereinafter Use of Electronic Media for Delivery Purposes]; *see generally* LOUIS LOSS & JOEL SELIGMAN, I SECURITIES REGULATION 533 (3d ed. 1998) (defining no-action and interpretative letters as "[a]n alternative method of securing informal advice from the Commission" as to "whether the Commission is likely to bring legal action if a given transaction occurs or [whether it] will take no action . . . .").

[40] *See* 15 U.S.C. 77f (1994). Note that securities must also be registered before they can be traded on a national securities exchange. *See* 15 U.S.C. 78l (1994).

[41] *See* 15 U.S.C. 77d (1994).

[42] A. Jared Silverman, *Cyberspace Offerings Raise Complex Compliance Issues*, N.J. L.J., Dec. 25, 1995, *available in* LEXIS, Legnew Library, Njlawj File ("The 1992 modifications to Regulation A . . . [are] commonly known as the small business initiative . . . .").

[43] *See* 17 C.F.R. § 230.251(b) (1998).

month period.[44] Not all states provide equivalent exemptions for small offerings, however. For instance, the Spring Street IPO, though exempted under Regulation A, was registered in eighteen states and the District of Columbia, none of which allowed Regulation A exemptions.[45]

11. Even if it does not allow a Regulation A type exemption, a state might provide a special exemption for "Internet Offers." Typically, the "Internet Offer" must meet three requirements. First, the issuer must indicate "that the securities are not being offered to persons in [the state]."[46] Second, the offer must not be "specifically directed to any person in [the state]."[47] Third, there must be no sale of the issuer's securities in the state "as a result of the Internet Offer."[48] The North American Securities Administrators Association (NASAA) has "approved a resolution based substantially on" this model.[49] More than three-fifths of the states have implemented the resolution.[50]

12. The combination of Regulation A and state exemptions for Internet offerings makes public offerings for small companies feasible because the exemptions reduce the cost of regulatory compliance by eliminating much of the registration obligations.[51] An important part of this mix is that Regulation A allows

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[44] *See id.*; *see also, e.g.*, Small Corporate Offering Registration – Requirements and Limitations, Memorandum from Commonwealth of Massachusetts, Secretary of the Commonwealth, Securities Division, (Mar. 24, 1999) (listing "[o]ne million dollars in a 12 month period" as the first restriction on eligibility for Small Corporate Offering Registrations using Form U-7).

[45] *See* Silverman, *supra* note 42.

[46] *See* 64 Pa. Code § 203.190 (1997).

[47] *Id.*

[48] *Id.*

[49] *See* North American Securities Administration Association, Inc., *Uniformity Study* (last modified Feb. 2, 1999) <http://www.nasaa.org/whoweare/commentletters/ 082297jkatzletter.html> (letter from Mark J. Griffin, President, NASAA, to Jonathan Katz, Secretary, SEC); *see also* Use of Internet Web Sites, *supra* note 32, at 14,808 n.19 (noting that under the NASAA resolution, "[s]ales of the securities that were the subject of the Internet offer could be made in that state after the offering has been registered and the final prospectus has been delivered to investors, or where the sales are exempt from registration").

[50] *See* Use of Internet Web Sites, *supra* note 32, at 14,808 n.19 (noting that 32 states have adopted the resolution and another 15 "have indicated an intent to do so").

[51] *Cf.* Osterland, *supra* note 33, at 26-27 (noting, before widespread exemption for Internet offerings, that "[t]he cost of meeting state regulations for registration . . . make[s] public offerings for small companies a nightmare").

eligible small issuers to "test the waters" before registering with the SEC.[52] "For an issuer like Spring Street, that wants to raise capital without the assistance of investment bankers, the ability to engage in informal contacts and solicitation before it delivers the formal offering documents may facilitate the offering . . . ."[53] Regulation A does not proscribe use of on-line media for testing the waters.[54]

13. Note that federal regulations may also preempt state regulations. For instance, the National Securities Markets Improvement Act of 1996[55] "precludes the states from directly or indirectly imposing registration requirements on securities issued by investment companies and securities that are listed on a national exchange when the securities are offered to 'qualified purchasers' as defined by the SEC's rules."[56] Thus, the small business initiative exemption can provide small businesses with access to capital markets without having to meet the rigors of a full registration.

3. Distribution and Delivery

14. Specific requirements govern each part of the process for distributing securities in an Internet securities offering, which are the pre-filing, waiting, and

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[52] *See* Rule 254, 17 C.F.R. § 230.254 (1998) (permitting use of a "solicitation of interest" document prior to filing the "offering statement" required by Regulation A); Jeffrey A. Brill, Note, "*Testing the Waters" - The SEC's Feet Go from Wet to Cold*, 83 CORNELL L. REV. 464, 467 (1998) ("[T]he testing-the-waters rule enables small businesses to solicit indications of interest in a potential Regulation A offering before incurring the costs and burdens of preparing an offering statement and filing it with the SEC."); *but see* Silverman, *supra* note 42 (noting that registration may still be required for an Internet direct IPO under section 301 of the Uniform Securities Act in states that do not provide a similar exemption); UNIF. SEC. ACT (1985) § 301, 7B U.L.A. 166 (1998 pocket part) ("A person may not offer to sell or sell a security in this State unless it is registered under this [Act] or the security or transaction is exempt under this [Act].").

[53] Coffee, *supra* note 13, at 1203.

[54] *See* Raysman & Brown, *supra* note 38, at 3 ("Although there are no federal statutes or regulations specifically addressing the issue with respect to the Internet, certain provisions of federal securities law permit 'testing the waters' in traditional offerings of securities (determining whether a market for the offering of securities exists before the issuer invests time and funds in complying with federal and state securities law).").

[55] National Securities Markets Improvement Act of 1996, Pub. L. No. 104-290, 110 Stat. 3416 (1996) (codified as amended at 15 U.S.C. §§ 77z-3, 78mm, 80b-3a).

[56] Bartholomew & Murphy, *supra* note 32, at 190-91.

post-effective periods.[57] During the pre-filing period, Rule 135 of the Securities Act provides a safe harbor for limited announcements about the intended offering.[58] The issuer–but no one else, not even an underwriter–may place these permitted announcements on the Internet by creating a Web site to attract investors.[59]

15. The SEC supplemented its usual case-by-case approach for regulating securities[60] with guidelines for use of electronic media in the dissemination of information required by the federal securities laws.[61] The guidelines require issuers disclosing and delivering registration information over electronic media to meet the same standards as traditional paper-based systems.[62] The guidelines leave room for the possibility of "an issuer . . . structuring its offering as one that will be made only through electronic documents."[63] With the SEC's apparent blessing, there may soon be a revolution in the way that issuers distribute securities information.[64]

16. The SEC also acknowledged that alternative methods of electronic delivery that provide "assurance comparable to paper delivery that the required information will be delivered, may satisfy delivery or transmission obligations."[65] The "assurance" necessary involves "notice" and "access." First, an issuer must give "notice" to investors confirming the availability of information, in a "timely and adequate" manner.[66] A company must let investors know that new information exists and that investors might have to take some action within a certain period of

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[57] *See* HOWARD M. FRIEDMAN, SECURITIES REGULATION IN CYBERSPACE 3-1 (1997) (offering a comprehensive view of the restrictions that apply to the pre-filling, waiting, and post-effective periods).

[58] *See* 17 C.F.R. § 230.135 (1998); FRIEDMAN, *supra* note 57, at 3-4.

[59] *See* FRIEDMAN, *supra* note 57, at 3-4.

[60] *See* Brill, *supra* note 52, at 474 (noting that statutory compliance was determined on a case-by-case basis).

[61] *See* Use of Electronic Media for Delivery Purposes, *supra* note 39, at 53,458.

[62] *See id*.

[63] *See id*. at 53,461 n.27.

[64] *See id*. at 53,458 ("This interpretive guidance is intended to . . . encourage continued research and development and use of such [electronic] media.").

[65] *Id*.

[66] *Id*.

time. A Web site posting does not satisfy delivery requirements unless the issuer can otherwise show that delivery to the investors has been satisfied. Second, potential investors must also have "access" to the disclosed information comparable to that achieved by postal mail delivery. A new medium may be used, as long as it is "not . . . so burdensome that intended recipients cannot effectively access the information provided."[67]

4. Prospectus and Tombstone Advertisements

17. After filing a registration statement or offering statement with the SEC, an Internet issuer must prepare an appropriate prospectus like any other issuer that desires to sell securities.[68] A prospectus, whether electronic or paper, must meet the standards established by the SEC and state securities commissions.[69] An electronic prospectus must provide the same amount of disclosure as any similar paper document.[70] Delivering a "prospectus electronically . . . is particularly cost-effective because it allows a prospective investor to view the prospectus on-line, and then download or print it at no cost to the issuing company."[71] A preliminary prospectus must be updated the same way that the paper version would be.[72] To insure that notice of updated information for investors is effective, companies should send electronic notice of its updates to potential investors.[73]

18. SEC regulations permit the use of tombstone advertisements[74] to disseminate information about a specific transaction during the waiting period.[75] If

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[67] *Id.*

[68] *See* 15 U.S.C. § 77e(b)(2) (1994) ("It shall be unlawful for any person, directly or indirectly . . . to carry or cause to be carried through the mails or in interstate commerce any such security for the purpose of sale or for delivery after sale, unless accompanied or preceded by a prospectus . . . .").

[69] *See* Use of Electronic Media for Delivery Purposes, *supra* note 39, at 53,460 n.26.

[70] *See* 17 C.F.R. § 230.253 (1998).

[71] Martin, *supra* note 5, at 46.

[72] *See* Use of Electronic Media for Delivery Purposes, *supra* note 39, at 53,460 n.26.

[73] *See* SECURITIES IN THE ELECTRONIC AGE: A PRACTICAL GUIDE TO THE LAW AND REGULATION 1-18 to 1-22 (John F. Olson & Harvey L. Pitt eds., 1998) (discussing mixed-media and CD-ROM prospectus, graphic and image information, and hypertext links).

[74] Tombstone advertisements are placed in newspapers to give basic details about a securities offering. *See* JOHN DOWNES & JORDAN ELLIOT GOODMAN, DICTIONARY OF FINANCE AND INVESTMENT TERMS 652 (5th ed. 1998).

issuers or underwriters provide the Uniform Resource Locators (URLs) to their Web sites, investors can access information advertised in a tombstone via the Internet, including the preliminary prospectus. As with any printed tombstone advertisement, an Internet tombstone should also comply with the requirements of section 2(10) and Rule 134 of the Securities Act.[76]

5. Electronic Roadshows

19. When an issuer is ready to distribute a preliminary prospectus, during the waiting period, it may hold electronic roadshows, which are Internet broadcasts where the issuer and underwriter explain an offering to institutional investors, analysts and money managers.[77] The SEC has issued no-action letters for electronic roadshows that are limited to an audience of qualified sophisticated investors.[78]

B. On-Line Securities Offerings

1. Internet Direct IPOs

20. Direct IPOs, or IPOs undertaken "without the assistance of an underwriter," were possible before the Internet, but issuers found it "difficult to reach a wide range of investors."[79] An IPO issued on the Internet, by contrast, is likely to reach many unsophisticated investors.[80] Many Internet direct IPOs are small and, accordingly, are exempt from registration requirements under

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[75] *See* Securities Act § 2(a)(10), 15 USC § 77b(10) (1994).

[76] *See id.*; 17 C.F.R. 230.134.

[77] *See* Raysman & Brown, *supra* note 38, at 3 (defining road shows as "presentations to prospective underwriters, institutional investors, and others to generate interest among potential investors").

[78] Net Roadshow, Inc., SEC No-Action Letter, [1997-1998 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 77,367, at 77,851-52 (Sep. 8, 1997); *see also* IPONET, SEC No-Action Letter, [1996-1997 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 77,252, at 77,274 (July 26, 1996).

[79] Raysman & Brown, *supra* note 38, at 3 ("Before the advent of the Internet, it was possible for an issuer to undertake a public offering without the assistance of an underwriter but difficult to reach a wide range of investors.").

[80] *See* Christina K. McGlosson, *Who Needs Wall Street? The Dilemma of Regulating Securities Trading in Cyberspace*, 5 COMMLAW CONSPECTUS 305, 309 (1997) (noting that an Internet IPO can be accessed by anyone connected to the Internet).

Regulation A.[81] Unlike private offerings under Section 4(2) and Regulation D, however, Regulation A issuers must file Offering Statements that are simpler than a full registration statement.[82] Because on-line issuers must provide disclosure "substantially equivalent"[83] to their more traditional counterparts, "the case law addressing the adequacy of disclosure in securities offerings involving paper-based communications provides guidance as to the level of disclosure required in securities offerings conducted over the Internet."[84]

21. An Internet direct IPO may also cost less.[85] In a traditional IPO, the underwriters usually charge the issuer a percentage of the proceeds raised as underwriters' fees,[86] but by using the Internet, an issuer can avoid high underwriters' fees because Internet brokerage fees are less expensive.[87] In addition,

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[81] *See* Securities Act § 3(b), 15 U.S.C. § 77c(b) (1997); Regulation A, 17 C.F.R. § 230.236–.263 (1998) (limiting the exemption, however, to an aggregate of $5 million raised over any 12-month period); Giddings, *supra* note 1, at 789 (noting that Regulation A is one of the primary methods used for Internet direct IPOs).

[82] *See* Rule 251, 17 C.F.R. § 230.251 (1999). *See also* Securities Act § 4(2), 15 U.S.C. § 77d(2) (1997) (exempting "transactions by an issuer not involving any public offering" from the registration requirements); Regulation D, 17 C.F.R §§ 230.501–.508 (1998) ("governing limited offers and sales of securities without registration under the Securities Act of 1933"); *id*. at § 230.502(c) (prohibiting the offer or sale of these types of securities through general solicitation or advertising). Note that private offerings can also be made through the Internet, if restricted to qualified investors. *Cf*. Martin, *supra* note 5, at 47 (noting that the SEC permitted IPOnet "to place public, as well as private, offerings on-line . . . [in] a password-protected site").

[83] Use of Electronic Media for Delivery Purposes, *supra* note 39, at 53,460.

[84] Julie B. Strickland & Shanda D. Wedlock, *Information Practices: The Nits and Grits Versus the Net: Differing Disclosure Standards for "Retail" Versus "Professional" Investors*, *in* 29TH ANNUAL INSTITUTE ON SECURITIES REGULATION, at 939, 944 (PLI Corp. L. & Prac. Course Handbook Series No. B4-7206, 1997).

[85] *See* Giddings, *supra* note 1, at 794 ("The cost savings [of a direct IPO] are tremendous because cutting out the underwriters, accountants, printing, and 'roadshows' allows companies to go public at a cost of 6% of the total value of the issue, as opposed to a 13% average for a traditionally underwritten offering."); *but see id*. at 815 ("Although less expensive than traditional underwriting methods, Internet [direct IPOs] are not cheap or free and do not close overnight.").

[86] *See* William J. Grant, Jr., *Overview of the Underwriting Process*, *in* SECURITIES UNDERWRITING: A PRACTIONER'S GUIDE 28 (Kenneth J. Bialkin & William J. Grant, Jr. eds., 1985) ("[A] $3 million [IPO] of a high-risk start-up company may have an underwriter's commission of 13% . . . .").

[87] *See* Osterland, *supra* note 33, at 25 (noting that, with the advent of the internet, "[s]uddenly the services of expensive middlemen – from Wall Street brokers to travel and real estate agents – become optional"); *but see* Coffee, *supra* note 13, at 1200-01 ("Advances in information technology do not

an issuer may save printing costs because it can print fewer prospectuses for investors than in a traditional IPO.[88] One commentator has suggested that the extra information that issuers can provide investors in Internet-based offerings is also advantageous.[89]

2. Internet Trading Systems

22. The Internet has also been used for secondary offerings. For example, in February 1996, the founder of Spring Street launched the Wit Trade system, an on-line boarding mechanism for trading securities.[90] The Wit Trade Web site, which could be reached through the company's own Web page, "listed bids and offers for the company's stock and the e-mail addresses for potential buyers and sellers."[91] Initially, the site's purpose was to create liquidity for Spring Street investors by helping to create a secondary market in Spring Street stock.[92]

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render obsolete the key services that financial intermediaries in the securities markets actually provide, namely . . . reputation[,] . . . liquidity and immediacy to secondary markets.").

[88] *See* Martin, *supra* note 5, at 46; Kevin Mason, *Securities Fraud over the Internet: The Flies in the Ointment and a Hope of Fly Paper*, 30 CASE W. RES. J. INT'L L. 489, 492 (1998) (noting that because investors can download a copy of the prospectus from the web site, a company can avoid costly printing and distribution costs for prospectuses); Osterland, *supra* note 33, at 24-25 ("[T]he cost of printing a prospectus alone can run to as much as $20,000. . . . Maintenance of a Web site costs as little as $185 a month."); *cf.* Giddings, *supra* note 1, at 787 ("The most salient feature of the Internet [direct IPO] for the small company and the investor is the free access to information.").

[89] *See* Giddings, *supra* note 1, at 802-03 (noting potential ways to add value to a prospectus on-line, such as hyperlinks, audio-visual materials, and interactivity).

[90] A boarding mechanism is a bulletin board-based trading system that facilitates the matching of buyers and sellers for a particular stock. *See* Holly C. Fontana, *Securities on the Internet: World Wide Opportunity or Web of Deceit?*, 29 U. MIAMI INTER-AM. L. REV. 297, 303 (1998). *See also* Spring Street Brewing Co., SEC No-Action Letter, [1996-1997 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 77,201 (Apr. 17, 1996); Martin, *supra* note 5, at 17; *cf. Wit Capital* (last modified Dec. 28, 1998) <http://www.witcapitcal.com/welcome/services.html> (providing its members with access to IPOs, secondary, follow-on, and combination offerings, private placements, and public venture capital offerings).

[91] Bartholomew & Murphy, *supra* note 32, at 186.

[92] *See* Bartholomew & Murphy, *supra* note 32, at 186 (noting that Spring Street "commenc[ed] secondary trading of its common stock through an electronic bulletin board mechanism that allow[ed] shareholders to trade their stock without a broker, dealer or market maker"); Martin, *supra* note 5, at 47 (noting that Spring Street's founder "knew that the success of the company's future offerings depended on the level of liquidity in the stock" and set up the Internet site "to provide its shareholders with this liquidity"). A secondary market is an exchange and over-the-counter market where securities are bought and sold subsequent to original issuance, which took

23. In June 1996, Real Goods Trading Corporation ("RGTC") created an on-line trading mechanism.[93] The passive trading system enabled potential buyers and sellers of RGTC stocks to trade based on information posted on RGTC's bulletin board.[94] In response to RGTC's request for approval and permission to operate the site without having to register as a broker-dealer or a national securities exchange, the SEC issued a no-action letter in June 1996.[95] RGTC's situation was unusual, however, because the company was listed on the Pacific Stock Exchange and, therefore, was already subject to reporting and disclosure requirements. Furthermore, it was a "fairly simple system" that did not post any recent trading information or offer any assistance to investors wishing to complete a trade.[96]

24. Large companies, in addition to small entities have also taken advantage of this new business environment. In September 1996, General Motors Acceptance Corporation used an Internet boarding mechanism to raise $500 million.[97] Banks, brokerage houses, and stock exchanges also display their facilities on well-designed Web pages.[98]

C. The SEC's Blessing

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place in the primary market. *See* JOHN DOWNES & JORDAN ELLIOT GOODMAN, DICTIONARY OF FINANCE AND INVESTMENT TERMS 508 (4th ed. 1995). Proceeds of secondary market sales accrue to the selling dealers and investors, not to the companies that originally issued the securities. *See id*.

[93] *See* Mason, *supra* note 88, at 493; *see also Real Goods Off-the-Grid Trading System* (last modified Oct. 6, 1998) <http://www.realgoods.com/cgi-bin/rgsystem/x-rgsystem.pl>.

[94] *See* Daniel M. Gallagher, Comment, *Move Over Tickertape, Here Comes the Cyber-Exchange: The Rise of Internet-Based Securities Trading Systems*, 47 CATH. U. L. REV. 1009, 1031 (1998); Bartholomew & Murphy, *supra* note 32, at 187.

[95] Real Goods Trading Corp., SEC No-Action Letter, [1996-1997 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 77, 226 (June 26, 1996); *cf.* REAL GOODS TRADING CORP., 1997 Annual Report 37 (1997) ("In 1996 we became the first Company in history to receive the approval of the Securities and Exchange Commission (SEC) to launch our own trading marketplace both on and off the Internet . . . . You can purchase shares of our stock now through any stock broker or from another shareowner on our Web site . . . without paying a penny in sales commission.").

[96] *See* Martin, *supra* note 5, at 47.

[97] Bartholomew & Murphy, *supra* note 32, at 179 & n.7 (noting, however, that investors had to purchase this bond offering through a brokerage firm).

[98] *See, e.g., Morgan Stanley Dean Witter Home* (last modified Mar. 26, 1999) <http://www.deanwitter.com>; *NationsBank Home Page* (last modified Mar. 26, 1999) <http://www.nationsbank.com>; *New York Stock Exchange* (last modified Jan. 6, 1999) <http://www.nyse.com>; *see also* Kahn, *supra* note 24, at C1.

25. The SEC has promoted the use of on-line technologies in the securities arena as well. First, the SEC established the Electronic Data Gathering, Analysis, and Retrieval ("EDGAR") system in April 1993.[99] The system allows any Internet user to view SEC filings and company prospectuses on-line.[100] Under the rules of the EDGAR system, "all filings made by domestic issuers, including registration statements for initial public offerings, must be submitted electronically except in cases of hardship or where the rules otherwise provide for paper filing."[101] "Perhaps the most important attribute of the EDGAR filings is the public's ability to access EDGAR filings through the SEC's Web site on a twenty-four hour delayed basis."[102]

26. Moreover, the SEC has recognized that the Internet is now "an instrument of interstate commerce and that its use satisfies the 'jurisdictional means' requirements of the federal securities laws." § 5 of the[103] This statement reflects the regulators' assumption that the Internet is being incorporated into the securities business. Backed by the SEC's apparent blessing, investors, issuers, and securities dealers may expand in this growing business with even more confidence.[104]

IV. THE SECURITIES FRAMEWORK IN BRAZIL: HARMONIZATION

27. Brazil can serve as an excellent example of a developing securities market in contrast to the U.S. market. The Brazilian securities regulatory body, Comissão de Valores Mobiliários ("CVM"), supervises and regulates public

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[99] Rulemaking for EDGAR System, Securities Act Release No. 33-6977, [1992-1993 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 85,111 (Feb. 23, 1993) [hereinafter "EDGAR Rulemaking"]; *see also* Bartholomew & Murphy, *supra* note 32, at 185 (discussing the creation and phase-in of the EDGAR system).

[100] Rulemaking for EDGAR System, Securities Act Release No. 7122, [1994-1995 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 85,475, at 86,084 (Dec. 19, 1994).

[101] S*ee* EDGAR Rulemaking, *supra* note 99, at 83,775; *see also* Bartholomew & Murphy, *supra* note 32, at 185.

[102] Bartholomew & Murphy, *supra* note 32, at 185.

[103] Use of Internet Web Sites, *supra* note 32, at 14,808 n.18 (citing American Library Ass'n v. Pataki, 969 F. Supp. 160, 161 (S.D.N.Y. 1997)).

[104] *See generally* Bartholomew & Murphy, *supra* note 32.

companies, securities and stock trading, and mutual funds.[105] CVM supervises the stock exchanges and over-the-counter (OTC) markets in Brazil, as well as key aspects of the capital market.[106] The agency establishes rules for minority rights, disclosure of soft information,[107] and parameters for the pricing and commissions to be charged by brokers and dealers.[108] CVM also licenses securities traders, limits the self-regulatory powers of stock exchanges, and sets parameters for transactions that create "artificial" market conditions.[109] Companies seeking to go public in Brazil generally apply for a listing on a stock exchange that also allows for OTC trading.[110] In Brazil, the OTC market is not yet comparable to an exchange market in terms of trading volume and liquidity.[111]

28. Although there are some differences, the Brazilian regulatory body, like the SEC, was designed to ensure transparency and protect investors.[112] Like the

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[105] The CVM maintains a searchable Web site in English, Portuguese, and Spanish explaining the CVM's function, governing law, and development. *See Comissão de Valores Mobiliários: Duties and Powers* (last modified May 14, 1997) <http://www.cvm.gov.br/ingl/ acvm/acvm_100.htm>.

[106] *See Comissão de Valores Mobiliários: Regulations of Interest for Foreign Investors* (last modified July 20, 1998) <http://www.cvm.gov.br/ingl/regu/regu_6385.htm> [hereinafter <regu_6385.htm>]. The CVM is also in charge of Law 6.404/76, commonly known as "corporation law." *See id.* at art. 8. The subsequent introduction of Law 9.457/97 modified important aspects of Law 6.404/76, such as the revocation of article 254. This article provided for the selling of controlling interest, which required CVM previous authorization.

[107] Soft information refers to "opinions, predictions, or subjective evaluations," *i.e.*, statements that do *not* concern "objectively verifiable historical events or situations." Carl W. Schneider, *Nits, Grits, and Soft Information in SEC Filings,* 121 U. PA. L. REV. 254, 254-55 (1973). See also Newton Sergio de Souza, *Divulgação de Informações de Natureza Subjetiva: A Experiência do Direito Norte-Americano,* 7 REVISTA BRASILEIRA DE MERCADO DE CAPITAIS 51 (1981), for a discussion of the concept of "soft information" and the CVM's legal framework for disclosure of information relevant to the securities markets.

[108] *See generally* <regu_6385.htm>, *supra* note 106.

[109] *See generally id.* Instrucao CVM 202/93 sets parameters for the registration process for trading securities, which can be done in two ways: (i) exclusively for the OTC market, or (ii) for a stock exchange, which also allows trading in the OTC market.

[110] *See id.*

[111] *See supra* notes 6-7 and accompanying text.

[112] The U.S. securities laws clearly define offers, investment contracts, and exemptions, *see* 15 U.S.C. § 78c (1994), whereas the Brazilian securities laws do not mention them as exhaustively and specifically as the SEC regulations do. Additionally, the SEC does not have direct jurisdiction over the OTC market, since this market involves only private agreements negotiated between private

SEC, the CVM has the status of *amicus curiae*[113] in domestic courts. Because the Brazilian market is smaller and less sophisticated than the world's leading securities markets,[114] CVM regulations have not closely tracked the evolution of securities regulation that has occurred in the major markets. The CVM, for example, has not yet addressed Internet securities trading.[115] Although Brazil's securities market is less developed than other markets around the world, the Internet has provided a potential means for much more intense global exchange of securities and stocks from within and outside of Brazil, and established regulations do not yet adequately control this exchange.[116] Without guidance from the CVM, investors in the Brazilian securities market cannot properly assess the limitations and advantages of on-line investing.[117] Nevertheless, some Brazilian securities brokers have launched services that enable individuals to trade on-line.[118]

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parties. *See* Gary S. Rosin, *Historical Perspectives on the Definition of a Security*, 28 S. TEX. L. REV. 575, 592-95 (1987) (discussing the lack of regulation in the U.S. over-the-counter market). The CVM has addressed the OTC issue differently in Article 9 of Law 6.385/76. *See* <regu_6385.htm>, *supra* note 106, at ch. II, art. 9. The most important functions of the CVM are to curb any fraud or market manipulation to create artificial conditions of offer and demand in the Brazilian securities market; ensure investors full access to information about trading securities and the listed companies; promote the expansion of savings, and protect its investment in capital markets. *See Comissão de Valores Mobiliários: Main Objectives* (last modified May 14, 1997) <http://www.cvm.gov.br/ingl/acvm/acvm_500.htm>.

[113] An *Amicus Curiae* is "[a] person [or entity] with strong interest in or views on the subject matter of the action, but not a party to the action." BLACK'S LAW DICTIONARY 82 (6th ed. 1990). Thus, the CVM may introduce its interpretations of facts in lawsuits with respect to capital markets.

[114] *See* Jorge L. Urrutia, *Tests of Random Walk and Market Efficiency for Latin American Emerging Equity Markets*, 18 J. FIN. RES. 299, 300 (1995).

[115] *See generally* <regu_6385.htm>, *supra* note 106.

[116] *See* Uri Geiger, *The Case for the Harmonization of Securities Disclosure Rules in the Global Market*, 1997 COLUM. BUS. L. REV. 241, 293-94 (1997).

[117] *See, e.g.*, Daniel M. Gallagher, Comment, *Move Over Tickertape, Here Comes the Cyber-Exchange: The Rise of Internet-Based Securities Trading Systems*, 47 CATH. U. L. REV. 1009, 1011-15 (1998) (noting that securities regulation, both historically and in the more contemporary setting of on-line trading systems, occurs after abuses rather than proactively); Lewis D. Solomon & Louise Corso, *The Impact of Technology on the Trading of Securities: The Emerging Global Market and the Implications for Regulation*, 24 J. MARSHALL L. REV. 299, 335 (1991) (noting that market participants need some "level of certainty as to the applicable regulatory scheme in order to operate").

[118] Effective February 1999, a number of brokerage houses have begun taking advantage of on-line selling of securities. *See, e.g., Coinvalores – HomePage* (last modified Dec. 7, 1998) <http://www.coinvalores.com.br/index1.htm>; *Socopa Business On-Line* (last modified Mar. 4, 1999)

29. As world markets become increasingly globalized, regulators for both developed and developing securities markets may seek to harmonize their rules for securities trading.[119] One way to harmonize on-line securities trading would be to develop common (or compatible) electronic devices to facilitate on-line trading.[120] Such devices could provide both precise real-time quotes and execute clients' orders instantaneously.[121] In the non-cyberspace context, regulators have already shown how they can work toward convergence in their securities legislation. Some good examples are foreign American Depository Receipts in the U.S. and successful initiatives such as the Multi-Jurisdictional Disclosure System (MJDS) the U.S. has implemented with Canada, which permits a single registration for cross-border offerings.[122]

30. In the new, global securities markets created by the Internet, effective regulation will be as strong as its weakest link. Thus, it will be particularly important for securities regulators in developing markets to meet certain standards of their counterparts around the world. For example, securities agencies need to be relatively independent of political influence from local governments.[123] Such independence can be ensured, in part, by establishing procedures for both the composition and election of agencies' staff, including their terms of office and authority.[124] To complement these measures, securities agencies should be

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<http://www.socopa.com.br>; *Corretora Souza Barros – Câmbio e Títulos [Exchange and Headings] SA* (last modified Oct. 13, 1998) <http://www.souzabarros.com.br/souzabarros.htm>.

[119] *See generally* Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199, 1230-32 (1998) (noting the importance of harmonization in "nations' overall cyberspace-regulation strategy").

[120] *See* Geiger, *supra* note 116, at 301-316 (discussing the benefits of harmonization from economic, social, and antitrust perspectives); *see also* Solomon & Corso, *supra* note 117, at 335 (discussing the need for regulators to meet the challenges of internationalization brought about by technological developments).

[121] *See* Solomon & Corso, *supra* note 117, at 300-03 (discussing real-time quote services and automatic execution of transactions).

[122] *See* Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903, 918 (1998) ("Under [the MJDS,] Canadian issuers that comply with Canada's registration requirements may sell their securities in the United States without having to comply with the Securities Act's registration requirements.").

[123] *See* 2 TAMAR FRANKEL, SECURITIZATION: STRUCTURED FINANCING, FINANCIAL ASSETS POOLS, AND ASSET-BACKED SECURITIES § 12.21 (1991 & Supp. 1999).

[124] *See, e.g.*, Steven M. H. Wallman, *Introduction* to SECURITIES IN THE ELECTRONIC AGE: A PRACTICAL GUIDE TO THE LAW AND REGULATION xxiii, xxxviii-xxxix (John F. Olson & Harvey L. Pitt eds., 1998) (noting the difficulties of applying geographically-based sovereign regulation to securities transactions based solely in cyberspace and advocating international coordination).

adequately funded to achieve a degree of financial independence from local governments.[125]

31. Successful cross-border "common practices" for trading Internet securities would likely have these features:

- *compatibility with different legal systems*: this may be accomplished by incorporating generally accepted principles of international law and by providing incentives for disclosure, transparency, and fairness;
- *support of many nations*: this should provide maximum credibility while helping minimize regional favoritism;
- *cost-effectiveness and affordability*;
- *technological flexibility and compatibility*: the system should work with many different technological platforms and be robust enough to adapt to unforeseen events and future changes, especially those of new technological enhancements.

With the continued use of the Internet in the securities markets, however, other issues will arise – among them, questions of jurisdiction.

V. JURISDICTION

32. Among the issues that widespread use of the Internet in securities transactions may raise, the jurisdictional aspect will probably be one of the most challenging.[126] The assertion of jurisdiction in traditional cross-border transactions is already contentious.[127] Moreover, increasingly sophisticated commercial transactions and continuing technological advances are already making such analysis more complex.[128] The assertion of jurisdiction in cyberspace can only be expected to introduce even more complexity. This section briefly considers existing

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[125] *See* JACOB A. STEIN ET AL., ADMINISTRATIVE LAW § 3.02 (1999) (identifying control of funding as a means of controlling an administrative agency).

[126] *See* Matthew R. Burnstein, Note, *Conflicts on the Net: Choice of Law in Transnational Cyberspace*, 29 VAND. J. TRANSNAT'L L. 75, 78 n.6 (suggesting that jurisdiction is "*the* major issue for the net") (citation omitted).

[127] *See id*. at 82.

[128] *See* Michael D. Mann et al., *The Limits of Regulatory Jurisdiction in Cyberspace: Emerging Guidelines for Managing the Risk of Enforcement Actions Based on Website Activity, in* INTERNATIONAL SECURITIES MARKETS 1998, at 351, 355-7 (PLI Corp. L. & Prac. Course Handbook Series No. B4-7241, 1998) (discussing the securities industry's increased use of the Internet and introducing new jurisdictional problems that have resulted).

theories and rules for approaching international securities transactions, once again focusing on the U.S. and Brazil. These approaches will then be applied to the issues of cyberspace jurisdiction and conflict of law.

A. The American Approach

1. When Do U.S. Securities Laws Apply

33. U.S. federal courts have exclusive jurisdiction over all "actions at law brought to enforce any liability or duty created by this chapter or the rules and regulations thereunder."[129] While this scope is broad, neither the Exchange Act nor the Securities Act expressly mentions the possibility of extra-territorial reach.[130] Thus, some "courts have stated that, in addressing alleged transnational frauds, they must ascertain whether Congress 'would have wished' the resources of the U.S. courts to be devoted to such transactions."[131] To deal with the problem, federal courts have developed two tests: the "conduct" and the "effect" tests.[132] Under the "conduct" test, a federal court has jurisdiction if fraudulent conduct by a defendant in the U.S. has caused harm to any fraud victim, for example, due to the omission of relevant material facts for investors.[133] Under the "effect" test, American courts have jurisdiction if some fraudulent act elsewhere causes effects in the U.S. for American investors.[134] In addition, the Second Circuit has held that U.S. securities laws applied to the purchase, by a non-U.S. subsidiary of a U.S. corporation, of U.K.-registered shares issued by a foreign corporation in London.[135] It is not yet

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[129] Exchange Act § 27, 15 U.S.C. § 78aa (1998).

[130] *See id.*; *see also* Alfadda v. Fenn, 935 F.2d 475, 478 (2d Cir. 1991) ("The Securities Exchange Act is silent as to its extraterritorial application.").

[131] Russell E. Brooks, *The Extraterritorial Reach of the Securities Exchange Act*, 24 SEC. REG. L.J. 306, 306 (1996) (quoting Bersch v. Drexel Firestone, 519 F.2d 974, 993 (2d Cir. 1975)).

[132] *See generally id.* at 306-13 (providing an excellent overview of the conduct and effects tests).

[133] *See* Leasco Data Processing Equip. Corp. v. Maxwell, 468 F.2d 1326, 1337 (2d Cir. 1972) (stating that jurisdiction is proper in the United States when there are substantial fraudulent misrepresentations in the United States).

[134] *See* Schoenbaum v. Firstbrook, 405 F.2d 200, 208-09 (2d Cir. 1968) (holding that there must be a "sufficiently serious effect on United States commerce to warrant assertion of jurisdiction for the protection of American investors and consideration of the merits of plaintiff's claim").

[135] Itoba Ltd. v. Lep Group PLC, 54 F.3d 118 (2d Cir. 1995).

clear if the Second Circuit's expansive view of the extra-territorial reach of the U.S. federal securities laws will be widely adopted.[136]

2. When Does Securities Information Posted on a Web Site Trigger SEC Scrutiny?

34. Recognizing the importance of the Internet securities business, the SEC is "working hard to keep pace with these cutting-edge marketplace activities."[137] For instance, the SEC has expressed its views on the use of the Internet for the delivery of registration documents for some securities offerings.[138] To accommodate the rapid growth of the "Internet securities business," the SEC addressed the issue of "registration obligations under the U.S. federal securities laws to the use of Internet Web sites to disseminate offering and solicitation materials for offshore sales of securities and investment services" in Securities Act Release No. 33-7516 and Exchange Act Release No. 34-39779[139] The SEC has also addressed key issues related to the confidence of broker-dealers and investors and indirect participants in this growing business by "clarify[ing] when the posting of offering or solicitation materials on Internet Web sites would not be considered activity taking place 'in the United States.'"[140] The key to whether the registration provisions apply is "whether Internet offers, solicitations or other communications are targeted to the United States."[141] Thus, the SEC warns issuers to "implement measures that are reasonably designed to guard against sales or the provision of services to U.S. persons . . . ."[142]

35. Generally, the SEC expects that an offering will be considered not targeted to the U.S. if there is a "prominent" and "meaningful" disclaimer to that effect,[143] and the issuer reasonably attempts to ascertain residence of purchasers by

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[136] *See, e.g.,* Mark B. Schwartz, Note, *Itoba Ltd. v. Lep Group PLC: An Apple That Fell from the Wrong Branch*, BROOK. J. INT'L L. 467 (1996) (criticizing the opinion).

[137] Bartholomew & Murphy, *supra* note 32, at 179.

[138] *See supra* notes 60-67 and accompanying text.

[139] *See* Use of Internet Web Sites, *supra* note 32, at 14,806.

[140] *Id.*

[141] *Id.* at 14,807.

[142] *Id.*

[143] *See id.* at 14,808 & n.21.

asking for the mailing address or telephone number.[144] The release does not require one particular method; the measures taken will be assessed in light of the specific "facts and circumstances" of the case.[145] Accordingly, the Commission enumerates many factual situations that would serve as a guideline to evaluate those "targeting" circumstances.[146]

36. Off-shore offerings raise an important question: what rules should apply to a non-U.S. issuer who is not fully aware of the SEC rules? For example, if a Brazilian issuer uses the Web to offer securities, the Web offering could reach an American investor. A Brazilian issuer (living in Brazil) who does not know about the SEC requirements, however, might fail to indicate clearly that he was not "targeting the American market." After all, not every disclaimer meets the SEC standards; the SEC's requirement that the disclaimer be "meaningful" is *not* satisfied by a mere statement that "The offer is not being made in any jurisdiction in which the offer would or could be illegal."[147] Likewise, an issuer might inadvertently fail to make the disclaimer sufficiently "prominent,"[148] or might not think of including a disclaimer at all. It would thus be useful for securities regulators from all jurisdictions to address this situation or the issue of whether domestic or foreign issuers should comply with overseas securities regulations in the Internet context. Securities regulators could, perhaps, take joint action to resolve this issue.

37. The SEC has recognized that "[t]he interaction between the U.S. securities laws and the Internet can be expected to continue to evolve. As technology and practice develop, [the SEC] may revisit these and related issues."[149]

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[144] *See id.* at 14,808.

[145] *See id.*

[146] *See id.* at 14,808 (discussing use of disclaimers and procedures reasonably designed to guard against sales to U.S. persons).

[147] *Id.*

[148] *Id.*

[149] *See id.* at 14,807; *see also* Martin, *supra* note 5, at 47-48 (discussing recent SEC guidance in the area of on-line securities offerings).

B. The Brazilian Approach

1. Brazilian Courts Have Jurisdiction Over Persons Domiciled in Brazil and Transactions To Be Performed in Brazil

38. In Brazil's civil law system,[150] the legislature has adopted rules delineating the jurisdiction of Brazilian courts for conflict of law purposes.[151] Article 12 of the Brazilian Introduction to the Civil Code Law, in accordance with basic principles of private international law therein incorporated, states that "Brazilian Courts will have jurisdiction when the defendant is domiciled in Brazil or the obligation must be performed in Brazil."[152] Also, the first paragraph of Article 12 specifically asserts exclusive jurisdiction of Brazilian courts in lawsuits concerning real estate, but not securities.[153] In Brazil, neither courts nor the legislature have addressed the jurisdictional issues arising from conflicts in cyberspace.[154]

2. CVM Has Not Yet Defined Its Jurisdiction for Internet Securities Transactions

39. Pursuant to Article 9 of Law 6.385/76,[155] the CVM has jurisdiction in Brazilian territory, and, thus, the Brazilian Commission has adopted a "geographical" approach towards assessing its jurisdiction.[156] The CVM, however, has not yet specifically addressed securities transactions via the Internet.

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[150] *See* THOMAS H. REYNOLDS & ARTURO A. FLORES, FOREIGN LAW: CURRENT SOURCES OF CODES AND BASIC LEGISLATION IN JURISDICTIONS OF THE WORLD, I Brazil 4 to 5 (1995) (discussing the history of the Brazilian civil code).

[151] CODIGO CIVIL [C.C.] art. 12 (2d ed. Revista Dos Tribunais 1997) (Braz.).

[152] *Id.* (free translation).

[153] *See id.*

[154] *See* Luiz Manoel Gomes Jr., *O Controle Jurisdicional das Mensagens Veiculadas Através da Internet* [*Jurisdictional Control of Messages Propagated Through the Internet*], REVISTA DOS TRIBUNAIS [Journal of the Courts] [R.T.], Apr. 1997, at 76.

[155] Article 9 of Law 6.385/76 ("The Exchange Commission will have jurisdiction in all Brazilian territory . . . .") (free translation).

[156] *See id.*

C. The Cyberspace Context

40. Because "information flows freely across sovereign boundaries," new jurisdictional challenges arise that "must be addressed anew as information technology changes."[157] In electronic form, information can and does pass unhindered beyond traditional geographical, political borders.[158] One academic has even compared cyberspace to a "multi-dimensional, artificial, or virtual reality. In this world, onto which every computer screen is a window, actual geographical distance is irrelevant."[159] Thus, traditional notions of jurisdiction that stop at political borders are likely to be inadequate. Commentators have proposed several different bases for cyberspace jurisdiction, drawing different analogies from existing law.

1. The "Cyber-Domicile" Contractual Approach

41. One approach is "cyber-domicile."[160] At the first level, each user of a commercial Internet access provider, such as America Online, CompuServe, or the Microsoft Network, should be considered a "citizen" of that access provider. As a consequence, each citizen's relationship with its access provider would be considered a "cyber-domicile." At the second level, the user connects with networks other than his own so that "a user – through the access provider – becomes part of the larger cyberspace."[161] The "cyber-domicile" contractual approach focuses on the relationship between the user and the access provider. Under this doctrine, the parties choose a forum and a law to be applied in case of further conflict. "Forum selection clauses can bring order and stability to cyberspatial contracts by substituting the highly-developed real-space legal order for the uncertain and almost haphazard regime likely to result if courts are left to choose law in cyber-disputes."[162]

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[157] PERRITT, *supra* note 20, at 2.

[158] *See generally* David R. Johnson & David Post, *Law and Borders - The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1370-74 (1996); *see also supra* note 35.

[159] Burnstein, *supra* note 126, at 78.

[160] *See id.* at 97 (proposing the cyber-domicile approach to jurisdiction in cyberspace).

[161] *Id.*

[162] *Id.* at 101.

2. The "Admiral" Approach and Choice of Law

42. Another possible approach to establish jurisdiction in cyberspace is the "Admiral" approach. Admiralty law deals with concepts remarkably similar to those of the cyberspace world.[163] The Internet can be analogized to the high seas: "Just as the territory a ship traverses is not subject to any one state's exclusive jurisdiction, so too the user in cyberspace traverses a sovereignless region that is not subject to any state's exclusive jurisdiction."[164] Admiralty law employs the so-called "law of flags" rule to determine choice of law.[165] Again, we can analogize between vessels in high seas and users in cyberspace. The Admiralty approach suggests that choice of law in cyberspace might be decided by reference to the law of the physical jurisdiction in which the access provider is located.[166] The "law of flags," however, would not be helpful when the parties have different "flags," or different access providers.

3. The "Lex Fori" Approach

43. The law of flags approach can be modified to deal with the problem of different "flags," or different access providers, through the use of *lex fori*.[167] Thus, in a potential dispute between users from different access providers and countries, the law of the location of the lawsuit would prevail. The *lex fori* approach has sometimes been rejected in other contexts, however, because it may be unfair to defendants.[168]

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[163] *See id*. at 102.

[164] *Id*.

[165] *See generally* Lauritzen v. Larsen, 345 U.S. 571, 584 (1952) (discussing the "Law of the Flag" and its importance in resolving conflict of law issues in maritime cases).

[166] Burnstein, *supra* note 126, at 104; *see also* Johnson & Post, *supra* note 158, at 1379-80 (discussing the benefits of using the "terms of service" established by access providers as the basis for determining choice of law).

[167] *See* Burnstein, *supra* note 126, at 104. The term *lex fori* refers to "the positive law of the state, country, or jurisdiction of whose judicial system the court where the suit is brought or remedy sought is an integral part." BLACK'S LAW DICTIONARY 910 (6th ed. 1990).

[168] *See* EUGENE F. SCOLES & PETER HAY, CONFLICT OF LAWS 20-27 (1982) (discussing *lex-fori*).

4. The Arbitration and "Virtual Arbitration Mechanisms" Approach

44. Alternatively, an arbitration treaty could be specifically designed to resolve legal issues arising in the context of cyberspace. The Model Law on Commercial Arbitration issued by the United Nations Commission on International Trade Law is a useful example.[169] Another possibility is the so-called "Virtual Magistrate" project,[170] which is currently being tested by the American Arbitration Association.[171] This project, developed by the Villanova Center for Information Law, is essentially a virtual arbitration mechanism. Many potential conflicts may be addressed on-line, with the advantages of an institutional framework for an arbitration forum.[172]

44. Arbitration, however, is subject to some practical criticisms. First, the quality and fairness of the award may be questionable. The arbitration panelists might not be technically qualified to handle complex Internet securities cases. Second, international award enforcement may present logistical difficulties. Third, to provide effective and far-reaching enforcement rules for different nations, the rules would have to be enacted and revised quickly, to keep pace with cyberspace developments.

5. The "Lex Mercatoria" Approach

45. "Although there are many jurisdictional rationales, all require that there be some genuine link between the state and the persons, property or events over which jurisdiction is claimed."[173] Unfortunately, in cyberspace, the necessary links with "states" or "events" may not exist.[174] This is due to the fact that "[t]here is a 'placeness' to Cyberspace because the messages accessed there are persistent and

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[169] UNCITRAL MODEL LAW ON INT'L COMMERCIAL ARBITRATION (1985).

[170] *See The Virtual Magistrate* (last modified Oct. 13, 1997) <http://vmag.vcilp. org> (Web site specializing in "on-line arbitration and fact-finding . . . for disputes involving: "[u]sers of on-line systems; [t]hose who claim to be harmed by wrongful messages; and [s]ystem operators").

[171] *See* Cindy Fazzi, *AAA Moves Deeper into Cyberspace* (last modified Feb. 10, 1999) <http://www.adr.org/drt/cyberspace_article.html>.

[172] *See* Aron Mefford, Note, *Lex Informatica: Foundations of Law on the Internet*, 5 IND. J. GLOBAL LEGAL STUDIES 211, 226-28 (1997).

[173] GLENN H. REYNOLDS & ROBERT P. MERGES, OUTER SPACE PROBLEMS OF LAW AND POLICY 248 (1989).

[174] *See* Burnstein, *supra* note 126, at 81 ("In cyberspace, it does not matter at all whether a site lies in one country or another because the networked world is not organized in such a fashion.").

accessible to many people."[175] Thus, traditional notions of jurisdiction may not contain the elements necessary to deal with cyberspace. Thus, it may be better to create a body of law with general principles to be accepted and signed by different governments, much like the ancient *lex mercatoria*.[176]

VI. CONCLUSION

46. The Internet is likely to continue to expand – perhaps it will even grow to harness home appliances![177] The ever-growing Internet is likely to be a boon to the securities business by providing access to more markets and increasing the volume of trade, but only if there is an adequate legal framework.[178]

A. Current Risks and Problems of On-Line Securities Transactions

47. Jurisdictional and conflict of law issues are complex. The introduction of cyberspace trading in securities further complicates the legal analysis.[179] A regulatory solution should help give the securities market the necessary confidence

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[175] Johnson & Post, *supra* note 158, at 1379.

[176] *Lex mercatoria* was "[t]he law-merchant; commercial law. That system of laws which is adopted by all commercial nations, and constitutes a part of the law of the land. It is part of the common law." BLACK'S LAW DICTIONARY 911 (6th ed. 1990). Some authors have suggested that the principles behind *lex mercatoria* may be applicable to Cyberspace. *See* Anne W. Branscomb, *Overview* in TOWARD A LAW OF GLOBAL COMMUNICATIONS NETWORKS 1, 21 (Anne W. Bramscomb ed., 1986). One scholar has characterized *lex mercatoria* as "an amalgam of most globally-accepted principles which govern international commercial relations: public international law, certain uniform laws, general principles of law, rules of international organizations, customs and usages of international trade, standard form contracts, and arbitral case law." *See* David W. Rivkin, *Enforceability of Arbitral Awards Based on* Lex Mercatoria, 9 ARBITRATION INT'L 67, 67 (1993).

[177] *See* John Adam, *Geek Gods*, THE WASHINGTONIAN, Nov. 1996, at 109 (noting the opinion of Internet fathers Vent Cerf and Bob Kahn that individuals will be able to use the Net to control almost anything by 2025).

[178] *See* BIRD & BIRD, INTERNET LAW AND REGULATION 265 (Graham J.H. Smith ed., 2d ed. 1997); *E-Trade Revenue Up*, INFO. WK., Jan. 18, 1999, *available in* CMP Media Inc., *Information Week Online Home Page* (visited Feb. 10, 1999) <http://www.informationweek.com> (search the site for "E-Trade Revenue Up"); Justin Hibbard, *E-Commerce: It's a Matter of Trust*, INFO. WK., Jan. 18, 1999, *available in* CMP Media Inc., *CMPnet: The Technology Network* (visited Feb. 10, 1999) <http://www.cmpnet.com> (search the site for "Can I trust you?"); Marina Bidoli, *Preparing the Ground for Cyber-Trading*, FIN. MAIL, Jan. 22, 1999, *available in* Financial Mail, *Preparing the Ground for Cyber-Trading* (last modified Jan. 19, 1999) <http://www.fm.co.za/99/0122/invest/edata.htm>.

[179] *See* Burnstein, *supra* note 126, at 78.

to grow. One way to approach this challenge is to continue to encourage the development of groups to explore new satisfactory answers to these issues. The creation of a body of laws based on generally accepted international principles of law might provide a natural and satisfactory solution.

48. Even if matters of jurisdiction were satisfactorily resolved, Internet securities transactions would still present new challenges to securities regulators from all over the world.[180] This is because technological change often outpaces the capacity of legislators to match law to reality.[181] It is no different with the Internet.[182] Despite the efforts of some securities commissions, such as the SEC, to approach Internet transactions comprehensively, more must be done.[183]

49. Of course, even if securities commissions start to address Internet issues comprehensively, some Internet transactions may still be snarled in conflicts arising from differences in securities laws. Moreover, because the rules for Internet securities transactions are not yet clear, an offeror risks involuntarily committing fraud, by using the Internet in distributing its shares in the world market. For example, a securities transaction offering made through the Internet that was initiated in Brazil may have consequences in the U.S. In addition, the potential for conflicts involving different securities laws might induce courts to get into jurisdictional conflicts when claiming extraterritorial power.

50. There are also potential technical difficulties which arise because of the current stage of development of the hardware and software used for on-line trading. Although the number of on-line securities transactions during peak times is about one-sixth of that of the major airlines on-line reservation systems, the brokerage firms use much more complex software.[184] Thus, there are frequent crashes of the

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[180] *See, e.g.*, Brakebill, *supra* note 36, at 910-11; Burnstein, *supra* note 126, at 78, 116; Coffee, *supra* note 13, 1201-02.

[181] *See* Richard D. Marks, *High Technology Legislation As an Eighteenth Century Process*, 6 STAN. L. & POL'Y REV. 17, 18-19 (1994) ("[L]egal doctrine develops slowly and unevenly . . . Yet scientific innovation does not slow to allow judges and legislators to keep pace, much less catch up.").

[182] *See, e.g.*, Stratton Oakmont, Inc. v. Prodigy Servs. Co., No. 31063/94, 1995 WL 805178, at *1 (N.Y. Sup. Ct. Dec. 11, 1995) (finding that the Internet "is a developing area of law (in which it appears that the law has thus far *not* kept pace with the technology) so that there is a real *need* for some precedent").

[183] *See* Fontana, *supra* note 90, at 327 ("[I]n view of the increasing popularity of the Internet and prospective advancements, it will only become more important to resolve the issue of how to effectively regulate Internet offerings of securities.").

[184] *See* Scott Thurm, *For Frazzled Online Brokers, Technology Is the Problem*, WALL ST. J., Mar. 4, 1999, at B6 (noting that the need for encryption and very frequent updating makes the on-line securities trading systems much more complex and more likely to crash).

software connecting the brokerage firms' Internet servers and the "back office computers that actually process the trades."[185]

B. Hope for the Future

51. "A standard set of terms for resolving choice of law in cyberspace might be found in admiralty and maritime law, the *lex mercatoria*, or in a negotiated multinational choice of law treaty."[186] Arbitration may provide another possible solution in the case of conflict. The world-wide group of securities commissions, known as IOSCO,[187] is only beginning to address this issue. They should continue to foster the development of a common playing field in terms of limits, definitions, and methods of dispute resolution and enforcement for Internet securities.

52 We can expect the intense interest in Internet securities transactions to blur further the existing legal boundaries of nations because regulators from different countries will have an incentive to narrow the gap between their different securities rules. Surely the regulators will proceed with caution because harmonization of existing rules, if attempted, could affect the sovereignty of nations.

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[185] *See id*. ("Hardly a week goes by without a computer glitch disabling a major online brokerage . . . .").

[186] Burnstein, *supra* note 126, at 102.

[187] *See* International Organisation of Securities Committees, *General Information on IOSCO* (Feb. 8, 1999) <http://www.iosco.org/gen-info.html> (providing general information about IOSCO).