The History, Development and Changing Environment of Protecting Computer Software against Copyright Violation in Brazil

Theodore G. Bryant

University of the Pacific, McGeorge School of Law

Follow this and additional works at: https://scholarlycommons.pacific.edu/globe

Part of the International Law Commons

Recommended Citation

Available at: https://scholarlycommons.pacific.edu/globe/vol8/iss2/6
The History, Development and Changing Environment of Protecting Computer Software Against Copyright Violation in Brazil

TABLE OF CONTENTS

I. INTRODUCTION .................................................. 376

II. HISTORY AND DEVELOPMENT OF BRAZILIAN SOFTWARE

COPYRIGHT PROTECTION ........................................... 378

A. Brazilian Perception of Intellectual Property Rights ............ 378
   1. Intellectual Property Protection as a Restraint on Competitive Markets ........................................... 378
   2. Intellectual Property Violations as a Cost of Doing Business 381
   3. Brazil's Failure to Equate Vigorous Intellectual Property Rights Protection with Economic Growth ............... 383

B. U.S. Influence Behind Passage of the 1987 Software Law: The Brazilian Super 301 Case ............................ 385
   1. Administrative Procedures .................................. 386
   2. Market Access .............................................. 387
   3. Intellectual Property Rights .................................. 388

C. The 1987 Software Law ........................................ 391
   1. Brazilian Reluctance to Afford Copyright Protection to Software .................................................. 392

III. THE CURRENT BRAZILIAN SOFTWARE MARKET .................... 396

A. Software Market Sector Demographics .......................... 396
   1. Brazil's Computer Market .................................. 396
   2. Effects of Brazilian Software Piracy Upon U.S. Trade .... 397

B. Recent Economic and Political Transformations ................. 400
   1. The Cardoso Administration .................................. 400
   2. The New "Real" .............................................. 403

IV. THE CHANGING ENVIRONMENT OF BRAZILIAN INTELLECTUAL PROPERTY PROTECTION ........................................... 405

A. Pending Changes to the 1987 Software Law .................... 406

B. GATT/TRIPs Impact ............................................. 407

C. Current U.S. Efforts ............................................. 409

V. CONCLUSION ..................................................... 412
The Transnational Lawyer / Vol. 8

I. INTRODUCTION

Brazil’s computer market is the fastest growing in the world,¹ with computer sales becoming, in 1994, the largest in Latin America.² The direct corollary to growth in the computer industry is the increased reciprocal demand for software applications.³ Yet, in Brazil, the majority of consumer demand for software has been satisfied historically by the illegal reproduction, or piracy, of the desired software.⁴ In 1993 over eighty-nine percent of all software in Brazil was the product of piracy,⁵ a minimal decrease from the ninety-one percent level of 1988. In 1994 Brazil improved significantly their piracy rate by reaching a historic low level of seventy-four percent.⁶

The high rate of computer software piracy does not reflect an absence of legislation in Brazil. To the contrary, the 1987 Software law provides the judicial means, at least on paper, by which software publishers may combat violations of their product copyrights.⁷ This law provides for fines,⁸ as well as criminal


2. J. P. Farber, Computer Fever, U.S./LATIN TRADE, Sept. 1994, at 11 [hereinafter Farber]; James Brooke, Brazil Luring Computer Companies, N.Y. TIMES, Aug. 6, 1994, at sec. 1, p.33, col. 3 [hereinafter Brooke] (stating that Bill Gates, head of Microsoft, predicted that Latin America would become his company’s fastest growing market in the second half of the 1990s). Microsoft is planning to start assembling software products at a new plant in Brazil. Brooke. In July of 1994, Microsoft signed a US$20 million contract with a Brazilian bank to test its software on an automatic teller machine. Id. Cf. Lenilson Ferreira, Brazil is Magnets for American Investment, JAPAN ECON., NEWswire, Feb. 16, 1995 (reporting that many U.S. multinational firms are turning their investment activities to Brazil as they pull their money out of the Mexican market following the current Mexican currency crisis).

3. Telephone Interview with Jeffrey Steinhardt, Corporate Attorney for Latin America, Microsoft Corporation, President, Latin American Business Software Alliance, Jan. 11, 1995 [hereinafter Steinhardt Interview 1/11/95].

4. See infra notes 171-187 (discussing the alarmingly high rate of illegal reproduction of software applications in Brazil).

5. Software Groups in Brazil Threaten Legal Action to Halt Piracy, 11 Int’l Trade Rep. (BNA) 552 (Apr. 6, 1994) (quoting Manoel Perira dos Santos, lawyer for the Brazilian Association of Software Companies and counsel for the Business Software Alliance in Brazil); see infra note 185 (discussing piracy rates estimation methodology).

6. See infra notes 172-173 and accompanying text.


9. Id. art. 35. Where the number of illegal copies or rate of illegal acquisition is unascertainable, the fine to be imposed is equal to 2000 copies in addition to those seized. Jeffrey D. Steinhardt & Richard E. Neff, Author’s Rights in Latin America, 34 Q. REV. ECON. & FIN. 117, 127 (1994).
penalties of up to two years imprisonment for software copyright violations.10 The 1987 Software Law, created and passed by the Brazilian legislature to avoid threatened U.S. trade sanctions,11 is again under scrutiny in the Brazilian Congress.12 Additionally, concern over Brazil’s protection of software copyright has found recent expression within diplomatic relations between Brazil and the United States.13 This comment discusses the changing nature of Brazil’s treatment of software copyright in light of the country’s historical perception of intellectual property rights. Part II outlines the Brazilian understanding of intellectual property rights, including the history, development and U.S. influence behind Brazil’s current software protection legislation.14 Part III presents the demographics of the Brazilian software market and discusses the important economic and political changes recently experienced in Brazil under President Fernando Henrique.

10. Microsoft Wins $10 Million Award in Software Piracy Case in Brazil, 10 Int’l Trade Rep. (BNA) 1376 (Aug. 18, 1993) (awarding Microsoft damages from a major Brazilian computer manufacturer, Prologica Microcomputers, who had sold unauthorized versions of Microsoft’s popular Disk Operating System (DOS)). Prologica installed the software directly onto the computers they manufactured. Id. Prologica claimed the application, which they labeled SO-16, was independently created. Id. Microsoft attorney George Fischer, a São Paulo high technology attorney, stated that “it is impossible to write a sophisticated operating system without spending money.” Id. An audit of Prologica’s records, ordered by the court, revealed that the company had spent no money on research and development. Id. Microsoft’s victory was only the second ever judicial decision in favor of a foreign manufacturer of software against a local Brazilian violator but the largest ever. Id.

11. Maria Ines Bastos, How International Sanctions Worked: Domestic and Foreign Political Constraints on the Brazilian Informatics Policy, 30 J. DEV. STANDARD 380, 384 (1994) (noting demands by the U.S. government for the dismantling of Brazilian protectionist trade policy to restore most-favored-nation trading status and fairness in international trade). Between 1985 and 1989, the United States threatened to impose commensurate trade barriers upon Brazilian exports to the United States. Michael Boyle, Brazilian Software Law: Building A Domestic Industry While Opening a Protected Market, 24 INTER-AM. LAW R. 281, 293-97 (1992). Fueled in part by Brazil’s fax stance on protecting intellectual property rights, namely of foreign manufactured products, threats of U.S. trade sanctions were lifted with Brazil’s passage of the 1987 Software Law. Id.


13. See, e.g., Shapiro Tells Panel Administration Will Give Special 301 Fresh Direction, 10 Int’l Trade Rep. (BNA) 648, Apr. 21, 1993 (threatening trade sanctions by U.S. Trade Representative that were similar to previous Brazilian Super 301 actions). USTR Fact Sheet on Special 301 Released April 30, 1993, 10 Int’l Trade Rep. (BNA) 726, May 5, 1993 (discussing those countries which the Clinton administration has resolved to take strong measures against to ensure that U.S. trading partners provide adequate and effective protection of intellectual property rights and comparable market access for relevant U.S. products, specifically singling out Brazil). USTR Announces Termination of Brazil Special 301 Investigation, 11 Int’l Trade Rep. (BNA) 344, Mar. 2, 1994 (ending a nine month investigation as a result of the Brazilian legislature’s announcement that it will seek the passage of improved intellectual property legislation by June 15, 1994).

14. See infra notes 19-156 and accompanying text.
Cardoso and their effect upon the Brazilian computer software market. Part IV reviews proposed changes to current software copyright legislation resulting from international agreements, as well as alternative methods of protecting software copyright. Part V concludes that Brazil, as the largest expanding software market in the world, must direct its attention towards increasing the level of protection afforded software copyright to sustain the current levels of growth in the informatic markets.

II. HISTORY AND DEVELOPMENT OF BRAZILIAN SOFTWARE COPYRIGHT PROTECTION

A. Brazilian Perception of Intellectual Property Rights

1. Intellectual Property Protection as a Restraint on Competitive Markets

Intellectual property rights occupy a unique position among the myriad of Brazilian economic and commercial concerns. Intellectual property in Brazil is dichotomous by nature; it is both a natural right of the creator to be protected from the rest of the world, as well as a restraint upon economic, industrial, and social progress. The Brazilian system for intellectual property protection is

15. See infra notes 157-226 and accompanying text.
16. See infra notes 227-290 and accompanying text.
17. E.g., Boyle, supra note 11, at 292-297 (examining Brazil’s refusal under the market reserve created for Brazilian informatic companies by the Brazilian Congress to license Microsoft, Inc.’s MS-DOS in the country). This refusal heightened U.S. attacks and threats to force Brazil to create a modern, workable, and reasonable computer software protection legislation. Id. The word “informática” in Portuguese results from the association of two different words: “informação” (information) and “automática” (automatic) are used to designate all activities related to information processing. Id. Thus, “informatics” means the science that deals with processes of communication between men and machines, as well as the activities involving or resulting from these processes. Rodriguez Casella, supra note 119, at BR-3.
18. See infra notes 291-303 and accompanying text.
19. Adrianna Camargo Rodriguez Casella, Brazil, in COMPUTER SOFTWARE PROTECTION LAW BR-1, BR-5 §201.1 (Cary H. Sherman et al. eds., 1991) (discussing applicability of copyright law to software for purposes of protection in Brazil). Recognition of intellectual property rights as those unique to its author or creator are known as “author” or “moral” rights. Steinhardt & Neff, supra note 9, at 117. This is in opposition to sui generis protection of intellectual property rights which is a protection regime unique to the domestic legal system perpetrating such protection and not following traditional methods of protection. Id. Author’s rights, derived from the French model droit de auteur, focuses upon the moral rights of the creator or innovator and his right to exploitation of the work. Id.
20. See infra notes 22-29 and accompanying text (presenting the popular Brazilian governmental understanding that protecting intellectual property rights inhibits competition by granting a de facto monopoly to the owner of the rights); cf. China, Turkey, India, Brazil Faulted for Inaction on Intellectual Property, BNA INT’L TRADE DAILY, Feb. 15, 1995 [hereinafter China, Turkey, India, Brazil Faulted for Inaction on Intellectual Property] (recognizing Brazil’s determination not to protect adequately the intellectual property rights associated with pharmaceuticals).
based on 19th Century European code provisions relating to copyright and industrial protection. These antiquated notions of intellectual property are mixed with statutory innovations eliminating protection in selected areas that are of post-World War II vintage.

Protecting intellectual property rights has, from the first intellectual property cases decided by Brazil's Federal Supreme Court, been viewed as contradictory to promoting competitive markets. By recognizing an individual's exclusive right in his work, a government grants that individual a monopoly regarding the exploitation of that work. The grant of a monopoly in one's work is viewed as detrimental where the creation is of high social utility. Brazil, like most developing countries, broadly defines intellectual property rights. In addition, Brazilian policymakers contend that Brazilian companies do not have the expertise or technical capabilities to compete equally with superior foreign companies. Thus, the ultimate goal of achieving competitive markets becomes unattainable when far superior products are introduced into the Brazilian market. Domestic industries, incapable of competing with the foreign manufacturers, become effectively excluded from their own national marketplace.


22. Sherwood, supra note 21, at 114.


24. Newton Silveira, Propriedade imaterial e concorrência, 300 REVISTA FORENSE 69 (1987) (Ana Paula Rago Villi trans.) (discussing the concept of intellectual property protection as creating an effective monopoly in the protected proprietary interest through the analysis of historic Brazilian federal cases).

25. But see, Steinhardt & Neff, supra note 9, at 121 (1994) (contending that the negative effects of technology monopolization more than offsets the contribution of stronger intellectual property protection toward stimulating cost-saving innovations in a given country).

26. See Steinhardt & Neff, supra note 9, at 118 (discussing exceptions to an author's exclusive right to control his creation in recognition of society's interest in gaining access to the work for beneficial purposes).


29. Flavio Grynszpan, Case Studies in Brazilian Intellectual Property Rights, in INTELLLECTUAL PROPERTY RIGHTS IN SCIENCE, TECHNOLOGY, AND ECONOMIC PERFORMANCE 99, 107 (1990) (analyzing Brazilian legislative decisions which deny intellectual property protection in pharmaceuticals to defend the interests of the Brazilian drug industry which does not have the research and development capabilities to compete with multinational firms). Traditional justifications for the protection of copyright are advanced through four separate arguments. LAURA N. GASAWAY & SARAH K. WIANT, LIBRARIES AND COPYRIGHT: A GUIDE TO COPYRIGHT LAWS IN THE 1990s 157 (1994). The first is a natural right justification where the author is entitled to the fruits of his labor. Id. Second, because it takes a considerable amount of investment, both in time and labor, to create innovative works, an incentive must be provided for such creators to be compensated and reimbursed for their work. Id. Third, an innovative creation may be seen as a cultural asset with protection of the creation benefiting the public interest. Id. Fourth, while the rights of the innovator or creator must be
concern to Brazilian policy makers involves creating and maintaining employment for Brazilian citizens, as opposed to protecting the profits that are transferred to foreign companies.\textsuperscript{30}

In an effort to provide local businesses the opportunity to compete with foreign companies, intellectual property rights are not effectively legislated or judicially enforced, thereby allowing the free use of otherwise protected creations.\textsuperscript{31} But while government officials, lawyers, businessmen, and economists alike argue that the costs of not permitting adequate intellectual property protection may be great, the costs of correcting such inadequate protection are even greater.\textsuperscript{32}

Brazil fails to notice its vast potential to create locally innovative, creative and unique processes and designs.\textsuperscript{33} One example is Brazil’s development of banking software.\textsuperscript{34} Prior to the introduction of the new Brazilian currency, the Real,\textsuperscript{35} high inflation deflated quickly any deposit of cash in one’s account. A misfortune for Brazil as a whole had actually helped its software industry. For years, Brazil’s inflation demanded that banks be able to transfer money and balance accounts instantly, otherwise, they would lose a fortune on the float. United States banks normally require a week to process and clear an out-of-state check; Brazilian banks perform this task instantaneously. The software to manage these transactions is mainly Brazilian and it has stimulated a variety of networks, financial and other sophisticated systems, that match the best in the world.
Brazilian banks are also using new software to allow their customers to bank at home. Where in the past the customer would have to remit all payments for utilities, phone, and credit in person at the bank, now these payments can be made over the computer lines via fax or telephone connections with modems. Cash withdrawal is the only service a bank customer must leave his house to enjoy.

2. Intellectual Property Violations as a Cost of Doing Business

The violation of intellectual property rights in Brazil does not evoke any domestic public response demanding strong enforcement of current laws. The Brazilian attitude towards such violation is that there is little, if anything, to be gained from protection and enforcement and that any protective action would have a minor effect in preventing future violations. The majority of intellectual property violations result from trade-secret infringement which, in Brazil, are viewed as a cost of doing business.

36. Steinhardt Interview 1/11/95, supra note 3 (explaining that Microsoft is entering into joint ventures with the Brazilian banks employing such revolutionary software as home banking is becoming one of the largest software markets yet to be tapped).

37. Frischtkal, supra note 31, at 73-74; see Piracy One of Many Software Issues, Corporate Legal Times (June 1994) (quoting Paul D. Carmichael of Apple Computer Inc., as saying that computer software piracy is not really a question of corporate culture but really a question of culture). On college campuses, for example, pirating software is de rigeur for the acquisition of computer software, as is the duplication of audio tapes, and this mentality carries over into the workplace. Id. It is almost impossible to enforce software piracy laws at the user level. Id. Therefore, there is a cultural aspect going on as far as the persuasiveness of copying, which carries over into the workplace, where it is practical to enforce the laws about software piracy. Id.

38. Frischtkal, supra note 31, at 73-74.

39. Identification of Priority Foreign Countries, 58 Fed. Reg. 26991 (May 6, 1993) (stating that Brazil does not provide adequate protection for trade secrets). Frischtkal, supra note 31, at 61-66. Trade-secret violations in Brazil occur where an employee of company A produces, with the company's resources and capital, a design or invention, then Company B hires the employee away at a higher salary or the employee starts up his own company to exploit the new creation. Brown, supra note 27, at 358 (explaining the "gypsy career" dilemma presented to Latin American companies seeking to acquire foreign technology through licenseeships). Because employee relations are viewed as a contractual relationship where the creations of one's own mind are exclusively the creator's own, inhibiting the exploitation of one's own creative energies is against natural law. Id. Thus, trade secret violations, the main vehicle for intellectual property rights violations, are viewed as a cost of doing business. Id.

40. See 58 Fed. Reg. 26991 (May 6, 1993), supra note 37. See Sherwood, supra note 21, at 113, 116. The gypsy career is viewed as a cost of doing business in Brazil. Id. at 122-23. The situation occurs when technical employees aspire to learn the technology of a company so as to position themselves to be hired away by competitors at attractive salaries. Id. This practice increases salaries as companies seek to both attract and retain skilled employees. Id. The need to "go it alone" reflects an unwillingness to trust others with knowledge of the innovation or creation. Id. Their lack of confidence in the ability of Brazil's intellectual property system to protect their innovations and subsequent refinements and developments leads them to choose the solitary approach. Id. Additionally, these researchers are not trained to run small businesses thus increasing the possibility for failure to an already risky undertaking. Id. What occurs is individuals best suited to researching and developing new technologies are devoting their time to keeping their small business afloat; an endeavor they are not suited for, forcing them to sacrifice those endeavors where their abilities lie. Id.
Interviews conducted by Robert M. Sherwood, a noted author on Latin American intellectual property issues, with Brazilian business leaders, government policy makers, attorneys, and scientific researchers uncovered surprising results highlighting Brazilian unwillingness for protecting more strongly intellectual property rights.\(^4\) The constant theme throughout the interviews was that most companies lost their proprietary technology through key technical employees hired away by competing firms offering higher employee salaries.\(^2\)

Mr. Sherwood's questions as to what could be done to avert the misappropriation of technology were met with one of three responses:

First, [the interviewees] assumed that the loss is an unavoidable cost of doing business. Second, they checked with their lawyers and confirmed that nothing can be done given the present state of the law, particularly regarding trade secret protection. Third, they assumed that departing employees always have the right to carry out any information they learned while employed with their firm.\(^3\)

The perceived inability to guard against the illegal acquisition of intellectual property\(^4\) is further enhanced by inadequate administration of existing intellectual property rights legislation. Administration of the Brazilian intellectual property system is characterized by both extended periods of severe budget restraint, which leads to poorly qualified personnel at the technical levels in the National Institute of Industrial Property (INPI), as well as INPI policy decisions denying or curtailing protection in specific areas.\(^5\)

---

41. Sherwood, supra note 21, at 114. Robert Sherwood performed research in Brazil from 1988-1990 interviewing over 120 businessmen, scientific researchers, venture capitalists, research park directors, selected officials from government agencies, academic economists, think tank researchers, and lawyers. Id at 113. Half of the interviews were with businessmen from Brazil's largest companies, but included small-to-medium sized firms. Id. The interviews were with people from throughout Brazil. Id. Mr. Sherwood inquired about the full spectrum of intellectual property, including trade-secrets, copyrights, patents, and trademarks. Id. The research was supported by the National Science Foundation and the U.S. Section of the Brazil-U.S. Business Council. Id.

42. Sherwood, supra note 21, at 116.

43. Id.

44. Frischtak, supra note 31, at 73. Brazil's judicial system does not provide effective enforcement of, or a deterrent to, infringements of one's intellectual property rights. Id. at 73-74. Judicial proceedings tend to be slow and the courts are reluctant to impose prison terms or grant adequate damages. Id. In Brazil, intellectual property right infringement does not elicit any public response demanding stronger enforcement. Id.

45. Sherwood, supra note 21, at 114.
Brazilian policymakers fail to connect economic growth to the protection of intellectual property rights. The best and possibly only affordable hope for Brazil to progress towards achieving a vibrant economically developed country is through the use of modern technology. While technology does permit lower cost of production of both qualitatively and quantitatively superior goods, it is also relatively simple to acquire illegally. Thus, absent effective legislation or enforcement of intellectual property laws, the incentives for local companies to innovate and create, rather than pirate, are nonattendant.

While the Brazilian perception of intellectual property rights may be accepting of violations, the costs created by such violations do not go unnoticed. Brazilian businesses are reluctant to allocate significant resources to internal company research and development because of the potential loss of research finding its way to its competitors. Because of insufficient private commercial allocation to research and development, Brazil remains, innovatively speaking, a static environment in many vital industrial sectors. Further, lack of private funding for research and development within companies leads to a major economic loss, in terms of companies failing to develop new and improved products in Brazil. Because most intellectual property violations result from trade-secret

46. Brown, supra note 27, at 349; see also Steinhardt & Neff, supra note 9, at 119 (hypothesizing that copyright industries possess the ability to contribute greatly to national economies and employment opportunities when examining the role played in copyright industries in other regional and national economies).
47. Brown, supra note 27, at 349.
48. See generally Michael L. Doane, TRIPs and International Intellectual Property Protection in an Age of Advancing Technology, 9 Am. U. Int'l L. & Pol'y 465 (1994) (addressing the dilemma of a domestic innovator who, without receiving proper compensation for his efforts, finds no reason to engage in the effort to create the innovative product).
49. Software Piracy Poses Global Threat; New SPA Study Urges Increased Government Attention to Enforcement in Foreign Markets, PR NEWSWIRE (July 5, 1994) (putting the software piracy problem into perspective, thieves last year stole as much business software as McDonald's sold hamburgers by comparing that a total of U.S.$7.4 billion of business software was pirated and McDonald's sold U.S.$7.3 billion); see also Sherwood supra note 20, at 115 (citing Edwin Mansfield, Protection of Intellectual Property Rights in Developing Countries, unpublished (1989)); see generally Eileen Hill, Strong IPR Protection is Important for High-Tech Trade; Intellectual Property Rights, BUS. AM., Aug. 1994, at 23 (reporting that when representatives of high-technology companies are asked about their most valuable assets they uniformly answer that it is their firm's intellectual property).
50. Sherwood, supra note 21, at 117.
51. Id. Evidence drawn from a questionnaire on the technological performance of the Brazilian industry from a 1980-81 sample of 439 industrial firms with 7156 plants showed that 67% of respondents believed that copying of product lines from competitors is a common practice in their sector. Frischtak, supra note 31, at 76-77.
52. See also Susan Athey, Would the Software Police Find Your Company Guilty, 45 J. OF SYSTEMS MGMT. 32 (1994); Sherwood, supra note 21, at 117.
infringement, businesses are reluctant to expose too much of their workforce to innovative and advanced technology. Thus, employees lack the synergy and essential training within the manufacturing units and research groups that is required to promote efficient technological advancement.

The effect of Brazil’s perception that intellectual property violations are a legitimate cost of doing business seriously impinges upon acquisition of foreign technology through licensing. A director of a Brazilian business will not have the incentive to compensate a foreign company in exchange for a license to utilize the technology because the same technology will be copied illegally by domestic competitors at no cost. Enthusiasm to acquire through licensing agreements the superior foreign technology is often thwarted by fears of economic loss through trade-secret violations. This inability to protect foreign licensed technology often precludes the foreign company from licensing such technology to the local Brazilian firm.

Brazilian business' failure to recognize or respect intellectual property also affects the venture capitalist side of Brazilian business. Venture capitalists cite that relatively few small-to-medium-sized technology companies are being formed. First, only a small number of people seek to begin a new company. Second, of those that do decide to start a new company, the new business owners are reluctant to provide the venture capitalist with sufficient information about the company's proposed technology to allow for a responsible analysis in deciding whether to lend money. Also, lack of adequate judicial enforcement of intel

55. Sherwood, supra note 21, at 125.
56. Sherwood, supra note 21, at 117. Mr. Sherwood's research revealed that Brazilian businesses are reluctant to fund licensing agreements with foreign technology sources. Id. at 126. "Although... it would be more cost effective to learn from the foreign source than to pursue the technology by conducting internal research, they found it was usually a waste of their time even to initiate discussions with the foreign supplier." Id. Businesspeople understood well the reluctance of foreign suppliers to risk placing valuable technology into the Brazilian legal and economic environment only to have it lost by an employee offered higher pay to work for a competing firm. Id.
57. Contra Braga, supra note 54, at 254 (stating that the conventional reasons for intellectual property protection are not enough to make an economic case for the adoption of intellectual property laws because there are other institutional arrangements what would generate the same result of the concession of legal rights in new knowledge).
58. Sherwood, supra note 21, at 123.
59. Sherwood, supra note 21, at 122. Venture capitalists prefer to examine about 100 candidates before selecting the four to five worth investing in. Id. at 123-24. Also, the applications received for financing provide only scant information about the technology on which the new company will be based. Id. The applicants are reluctant to disclose detailed information about the new technology because they fear that the knowledge will be taken by others. Id. Venture capital firms considered offering agreements guaranteeing confidentiality, but then realized that they were powerless to provide assurances that such agreements would be binding on the
lectual property violations leaves the owners and directors of Brazilian businesses without incentive to borrow funds to invest in research and development.60

B. U.S. Influence Behind Passage of the 1987 Software Law: The Brazilian Super 301 Case

From September 1985 until October 1989, the U.S. and Brazilian governments were engaged in a trade conflict based on Brazil’s protectionist informatic industry. This conflict was precipitated by the Brazilian government’s failure to provide effective legislation to protect computer software from unauthorized reproduction,61 as well as Brazil’s resistance to opening their markets to foreign competition.62

Throughout the 1980s, the United States reacted to the problem of inadequate intellectual property protection in foreign countries by enacting a variety of domestic and international legislation. The U.S. Congress, in a move to strengthen actions taken under Section 337 of the Tariff Act of 1930,63 created the Super 301 action.64 Super 301 allows the President of the United States to investigate alleged

venture capitalists’ employees. Id. Mr. Sherwood mentions that a secretary could easily copy the application then hand it “out the back door” to others. Id. Current Brazilian laws are ill suited and incapable of preventing such occurrences. Id.

60. Sherwood, supra note 21, at 122.
61. Bastos, supra note 11, at 380 (emphasizing the effectiveness of sanctions in promoting policy changes in Brazil through economic losses as well as creating a balance of political support for the policy within Brazilian society).
62. Id.

The “Special 301” provisions of the Trade Act of 1974, as amended, require the United States Trade Representative (USTR) to determine whether the laws and practices of foreign countries deny adequate and effective protection of intellectual property rights or fair and equitable market access for U.S. persons who rely on intellectual property protection. The USTR must identify for the President “priority foreign countries” upon which to potentially impose trade sanctions. A “priority foreign country” is a country that:

1. has the most onerous and egregious acts, policies and practices which have the greatest adverse impact (actual or potential) on the relevant U.S. products, and;
2. is not entering into good faith negotiations or making significant progress in negotiations to address these problems

If a country is identified as a “priority foreign country,” the USTR must decide within 30 days whether to initiate investigatory procedures of those acts, policies and practices that were the basis for identifying the country as a “priority foreign country.” A “Special 301” investigation is similar to an investigation initiated in response to an industry Section 301 petition, except that the maximum time for an investigation is shorter—6 months with the possibility of an extension to 9 months—as compared with the 12 to 18 months permitted under a petition-based section 301 investigation.

USTR Fact Sheet on Special 301, released Apr. 30, 1993, supra note 13.
foreign unfair trade practices and impose necessary trade sanctions upon the infringing country.65 The unfair act, policy, or practice must cause a burden or restriction on U.S. commerce.66 Declaring that foreign violations of U.S. intellectual property rights constituted unfair trade practices, President Reagan, through the application of Super 301, imposed trade sanctions, pressuring Brazil to change its treatment of computer software protection.67 United States complaints of Brazil's computer software intellectual property regime evolved from a general claim against protectionism in Brazil's information technology policy to a list of twenty-six specific points.68 This created a narrowly focused agenda for negotiations consisting of three parts: (1) administrative procedures, (2) market access, and (3) intellectual property rights.69

1. Administrative Procedures

The first point of agreement reached between the United States and Brazil in the Brazilian Super 301 Case was the administrative procedures through which the United States would monitor Brazilian progress in the area of computer software protection.70 According to the White House, U.S. President Ronald Reagan decided to suspend this first part of the case because Brazil had made sufficient progress on copyright protection for computer software.71 In August 1986, the Secretaria Especial de Informatica (SEI), Brazil's agency responsible for administering the informatic policy, implemented internal reforms increasing the speed

---

65. USTR Fact Sheet on Special 301, released Apr. 30, 1993, supra note 13.
66. Judith Hipper Bello & Alan F. Holmer, Section 301 of the Trade Act of 1974: Requirements, Procedures, and Developments, 7 J. Int'l L. BUS 633, 633-34 (1988) (stating that the sole requirement under Section 301 is that an act, policy, or practice of a foreign government or instrumentality be inconsistent with, or deny the United States benefits under, a trade agreement). The USTR has traditionally interpreted "trade agreement" to mean exclusively the General Agreement on Tariffs and Trade (GATT) or a trade agreement approved under § 3(a) of the Trade Agreements Act of 1979, 19 U.S.C. § 2503(a) (1982). Id. The trade agreement portion has been narrowly construed because in any case involving a trade agreement, the USTR is required to "promptly request proceedings on the matter under the formal dispute settlement procedures provided" in such agreement. Id. Many non-GATT agreements call for any dispute settlement to occur before the International Court of Justice. Id. The USTR contends that Congress did not "intend to require resort to the World Court in trade disputes." Id.
67. June 30 Deadline for USTR Determination of Retaliation Against Brazilian Informatic Policy, 4 Int'l Trade Rep. (BNA) 842, July 1, 1987. See infra notes 61-116 and accompanying text (outlining the main events of the U.S. Brazilian Super 301 Case and its significant influence upon Brazil's implementation of computer software copyright protection).
68. Bastos, supra note 11, at 384.
69. 50 Fed. Reg 37608 (1986) (reporting the initiation by the USTR of investigation into Brazil's informatics policy).
70. Bastos, supra note 11, at 384.
71. President Suspends Copyright Part of Brazil Case, But Talks Will Continue on Investment, 4 Int'l Trade Rep. (BNA) 867, July 8, 1987 (noting that Brazil's Chamber of Deputies in June of 1987 has been acting in a manner that, according to the White House, adequately addressed U.S. concerns about software copyright protection).
1995 / Protecting Computer Software Against Copyright Violation in Brazil

with which it processed company applications for local manufacture and import licenses.\textsuperscript{72}

In September 1990, the SEI approved a joint venture between IBM and Gerdau, a Brazilian data-processing service. The following November, an international consortium of U.S. and Brazilian government officials was created to analyze specific complaints reported by U.S. companies.\textsuperscript{73} Brazil’s cooperation with U.S. concerns was taken as a showing of good faith towards alleviating the trade conflict between the two countries and resulted in the United States suspending the first part of the “Brazilian Super 301 Case.”\textsuperscript{74}

2. Market Access

The level of market access U.S. companies were to have in Brazil’s informatic sector proved more difficult an area to negotiate. The United States vehemently contested Brazil’s application of a market reserve for national informatic companies which acted to the detriment of U.S. companies.

Brazilian informatic policies were designed with the sole purpose of establishing a national informatic sector to rival those of Asia and North America.\textsuperscript{75} The market reserve set aside various market sectors in which foreign competition was effectively excluded.\textsuperscript{76} The Brazilian informatic policy created broad authority to restrict imports and reserve for Brazilian-owned firms the sole right to manufacture and sell products within certain high-technology sectors.\textsuperscript{77} The exclusion of foreign competition was deemed necessary to provide total market control for local Brazilian companies, thus destroying all obstacles to the creation of a strong informatic market.\textsuperscript{78}

The market reserve represented a point of nationalistic pride within Brazil’s government.\textsuperscript{79} However, in the United States, the opening of Brazil’s informatic

\textsuperscript{72} Bastos, supra note 11, at 384-85.
\textsuperscript{73} Bastos, supra note 11, at 384-85.
\textsuperscript{74} 52 Fed. Reg 1619 (1986) (stating that on December 30, 1986 the President suspended those parts of the investigation concerning administrative procedures).
\textsuperscript{75} See generally Dr. Antonio Chaves, Brazil, in INT’L COPYRIGHT LAW & PRACTICE, BRA-1, BRA-23 (1988) (explaining that Brazil sought, with the implementation of its sui generis computer software protection law, to rid itself of its heavy dependence upon foreign manufactured software and all its colonial implications).
\textsuperscript{76} Industry Representatives Strongly Oppose Brazil’s Informatics Policy, 4 Int’l Trade Rep. (BNA) 387, Mar. 18, 1987.
\textsuperscript{79} Fischer Interview, supra note 30 (explaining that Brazil sought to rid itself of the colonial implications inherent in total reliance upon foreign manufactured technology, even though those products have significant social utility).
market to foreign manufactured products was imperative. At stake in these discussions was nothing less than the right of U.S. patent and copyright holders to benefit from the technology created with their work, energy, and capital. The United States ultimately compromised their hardline position to Brazil’s inadequate intellectual property protection upon receiving Brazilian assurances that the market reserve for the informatic market would be in effect only until 1992 and that it would not extend to any other products.

3. Intellectual Property Rights

The heart of the U.S. “Brazilian 301 Case” focused upon Brazil’s failure to accord protection for computer software against illegal reproduction. The Brazilian government’s concern about the inadequate treatment of their informatic industry led to the passing of the 1984 Informatics Law. The Informatics Law created the market reserve through which Brazil reserved specific market sectors exclusively for Brazilian businesses; however, it failed to address any level of protection for software. A companion to the 1984 Informatics Law, Bill No. 260 of 1984, sought to extend a sui generis regime of protection to computer software. The Informatics Law combined both patent and copyright law and was under discussion when the United States began its Super 301 investigation.

---

80. Administration Vote on Brazil Informatics Comes Under Congressional Fire at Hearing, 4 Int’l Trade Rep. (BNA) 930, July 22, 1987 (quoting Representative James Florio (D-NJ) criticizing Brazil’s market reserve and stressing the importance for U.S. access to that market).

81. Id. (quoting Representative James Florio (D-NJ) during hearing debates on the administration’s activities with Brazil’s informatic policy).

82. Brazil To End Market Reserve On Computer Goods And Software, 40 PAT. TRADEMARK & COPYRIGHT J. 487 (Oct. 4, 1990) (emphasizing the Brazilian government’s announcement that it will end its market reserve policy on computer goods and software on October 29, 1992).

83. 52 Fed. Reg 1619 (1986), supra note 74 (stating that Brazil’s eradication of the market reserve by 1992 was a primary impetus behind the U.S. President suspending further USTR investigation into Brazil’s informatic policy).

84. Bastos, supra note 11, at 384, 386.


87. See Chaves, supra note 75, at BRA-25 (writing that sui generis protection is law which is unique in nature, not following traditional tenets of the regime for which it is offered, and uniquely established by the legislating body). Id.

88. Bastos, supra note 11, at 386.

89. Id.
The United States suggested to Brazilian negotiators that copyright law would afford a more feasible regime for protecting computer software. In light of Brazil's and the United States' signatory status to both the Universal Copyright Convention and the Berne Convention for the Protection of Literary and Artistic Works, copyright protection would be easily adaptable to the protection of software. As a result of domestic governmental negotiation, Brazil's National Council for Informatics approved the use of a copyright regime for the protection of computer software.

In December 1986, Brazilian President José Sarney presented proposed legislation improving intellectual property protection for computer software to Brazil's House of Representatives. The House of Representatives approved the legislation, which formally became law on December 18, 1987. Specifically, the law enunciated that copyright protection would be extended to computer software.

Dissatisfaction with the 1987 Software Law was tepid at best. Dissatisfaction with the 1987 Software Law centered around two provisions in the new Brazilian law: maintaining the principle of "similarity" for foreign applications; and prohibiting reverse engineering of copyrighted software.

See generally, Guy Burkill, Reverse Compilation of Computer Programs and its Permissibility Under the Berne Convention, 6 COMP. L. & PRAC. 114 (1990) (explaining incorrect European Community's assumption that the Berne Convention would tolerate virtual unmitigated reverse compilation of computer programs by not distinguishing between uses for study and research and those of unscrupulous competitors seeking an unfair competitive edge); A.D. Schuz, An Overview of the Berne Convention—Generally and in Relation to Computer Programs and Semiconductor Chips, 9 COMP. L. & PRAC. 115 (1993) (outlining the Berne Convention's applicability to the protection of computer software, though computer software is not specifically mentioned but is encompassed, though debatable, under "literary and artistic works").
manufactured software to be marketed in Brazil; and Brazil's extending only twenty-five years of protection for software rather than the traditional fifty years accorded other copyrighted works.  


After Brazil's passage of a comparatively innovative software law, the issue of market access for foreign manufactured software applications was still left unresolved. Brazil's insistence on applying the standard of "functional equivalent" as justification for disallowing foreign manufactured software into the country proved to be the impetus to President Reagan's imposition of trade sanctions.

Although parts one and three of the "Brazilian Super 301" case had been resolved, the issue of market access remained throughout the entire USTR investigation. Brazil's refusal to license Microsoft's MS-DOS 3.2 in the country on the grounds that a functionally equivalent locally manufactured product existed increased U.S. dissatisfaction with Brazilian trade policies in the informatic sector.

The U.S. sanctioned, inter alia, Brazilian footwear producers, airplane manufacturers and orange juice producers. The sanctions sought to equalize the United States' US $105 million losses caused by Brazil's inadequate informatic stock and management control held by local residents).

101. Id. at 12 (interpreting the law of similars test as violative of Brazil's obligations under the Berne Convention). The Berne Convention, to which Brazil is a signatory member, allows 25 years of protection as the minimum for applied works. Id. Under Brazilian law, however, applied art works are protected only if their artistic value is (disassociable) from their industrial nature. Id. It is difficult to fit computer programs into this category. Id.

102. Steinhardt & Neff, supra note 9, at 127 (stating that Brazil chose a sui generis Software Law in 1987 rather than protecting software under its copyright law).

103. Bastos, supra note 11, at 386.

104. Trade Sanctions Imposed Against Brazil, Statement (Nov. 13, 1987) in DEPT. ST. BULL., Jan. 1988, at 60 (announcing Presidential intentions to raise tariffs on certain Brazilian exports to the United States and prohibiting the Brazilian importation of specific computer products as a response to Brazilian exercise of unfair trade sanctions in the computer products markets).

Brazil is a good friend of the United States, and we support the steps it is taking to restore its democratic institutions. But Brazil is also a major beneficiary of the global trading system, the openness of which cannot be maintained if markets are deliberately closed and policies incompatible with a more free and open trading system are established.

Id. (quoting President Reagan).

105. Bastos, supra note 11, at 386-87.

106. 52 Fed. Reg. 44939 (1987) (seeking responses to Brazil's rejection of a licensing agreement between Microsoft and six Brazilian informatics companies wanting to implement Microsoft's DOS application).


108. 52 Fed. Reg. 44939 (1987), supra note 106 (providing an exhaustive list of all Brazilian products upon which potential U.S. sanctions would be imposed in retaliation of Brazil's failure to implement adequate protection of the informatic sector).
market control. The Brazilian government responded by threatening to impose sanctions of their own.

President Sarney responded to President Reagan’s announcement of trade sanctions as an undue and discriminating threat that may bind U.S.-Brazilian relations over a lesser matter. Brazilian disappointment with President Reagan’s announcement of trade sanctions also arose from the fact that Brazil learned of the White House list of Brazilian exports considered for retaliation through the international press rather than through proper diplomatic channels. Following President Sarney’s statements, acting Brazilian Foreign Relations Minister Paulo Tarso Flecha de Lima stated that wheat, coal, fertilizers and sulfur would be included on a list of U.S. products upon which comparative sanctions would be imposed. In January 1988, the Brazilian National Council for Informatics changed their previous decision, which had excluded Microsoft’s MS-DOS 3.2, and allowed Microsoft’s later improved version into Brazil. The U.S. government responded by suspending its retaliatory measures in February 1988, but continued its “Super 301” investigation of Brazil until October 1989, when the “Brazilian Super 301” case was finally terminated.

C. The 1987 Software Law

On December 18, 1987, the Brazilian legislature enacted Law 7646/87, the 1987 Software Law. The Software Law represents Brazil’s first attempt to legislatively protect the proprietary rights of computer software. A major

---


110. Id.

111. Id. (quoting Brazilian President Sarney responding to President Reagan’s threats as a product of the de minimis problem of Microsoft not being able to market its MS-DOS 3.2 into the country).


114. Bastos, supra note 11, at 386.

115. Access to Brazil’s Software Market Improved Under New Law, U.S. Executives, Officials Say, 6 Int’l Trade Rep. (BNA) 1077, Aug. 16, 1989, (reporting that the 1987 Software Law, approved in December 1987, opens access to Brazil’s market). However, U.S. disapproval is still cited under the law’s test of similarity, which might exclude similar foreign products. Id.

116. Project of Law No. 8551-B, Diário do Congresso Nacional, I, June 23, 1987 (providing that Draft Law 8551 established the foundation upon which the 1987 Software Law was built).

117. 1987 Software Law, supra note 8, art. II.

118. Casella, supra note 17, at BR-5 § 204.1.
component of the 1987 Software Law is its utilization of a *sui generis*\textsuperscript{119} form of protection rather than employing a more traditionally recognized copyright law.\textsuperscript{120}

1. Brazilian Reluctance to Afford Copyright Protection to Software

In Brazil, within governmental agencies and private companies, the protection of computer software from illegal reproduction is a field of very recent interest.\textsuperscript{121} The 1984 Informatics Law,\textsuperscript{122} which is the Brazilian legislatures’ call for the National Congress to approve specific laws on issues relating to computer software, failed to resolve the question of under what theory of intellectual property computer software would be protected: patent, trademark, copyright, trade-secret, or know-how.\textsuperscript{123} This failure to address the appropriate regime represented the general world-wide confusion over which was most appropriate for protecting software.\textsuperscript{124}

In the early 1980s, Brazil found itself among many other countries that did not want to utilize copyright law for the protection of computer software.\textsuperscript{125} The Brazilian government’s reservations on extending copyright protection to computer software were based upon three main political and economic reasons.

First, the term of protection should be compatible with the nation’s level of economic and social development.\textsuperscript{126} The Brazilian government argued that the length of the legal protection afforded by copyright law—the life of the author plus sixty years—would be too long.\textsuperscript{127} Societal interests, the government argued, demanded that the protection be limited to a shorter time so that, as occurring

\textsuperscript{119} Chaves, *supra* note 75, at BR-25.

Computer software is defined as “the expressions of an organized set of instructions in natural or coded language, contained in a physical medium of any nature, for necessary employment in automatic data processing machines, devices, instruments or peripheral equipment, based on digital technology, to make them operate in a certain manner and for certain purposes.” 1987 Software Law, *supra* note 8, art. II.

\textsuperscript{120} See generally Steinhardt & Neff, *supra* note 9, at 126 (clarifying Brazil’s non-application of its copyright law for the protection of computer software). The system of protection of the intellectual property of software is as established in Law No. 5988 of December 14, 1973 (The Brazilian Copyright Law) with the amendments established by this Law to attend to the peculiarities of software. 1987 Software Law, *supra* note 8, at Title I, art. 2.

\textsuperscript{121} Casella, *supra* note 19, at BR-6.

\textsuperscript{122} Brazilian Law No. 7232, *supra* note 85.

\textsuperscript{123} Brazil: Law and Implementing Decrees on Software Protection, 27 J.L.M. 989, 989 (1988).

\textsuperscript{124} Boyle, *supra* note 11, at 291.

\textsuperscript{125} Id.; but see Casella, *supra* note 19, at BR-15 § 210 and BR-7 § 204.1 (noting that six months prior to Brazil’s passage of the 1987 Software Law the courts of São Paulo decided that computer software should be protected by copyright principles).

\textsuperscript{126} Casella, *supra* note 19, at BR-7 § 204.1 (discussing applicability of copyright law to software for purposes of protection in Brazil).

\textsuperscript{127} Fischer, The Software Law, *supra* note 78, at 6 (explaining the Brazilian government’s disagreement with protecting computer software *vis-à-vis* copyright law was that the duration of the protection, the life of the author plus 60 years, would be too long).
with inventions, the software may fall into the public domain.\textsuperscript{128} Inventions receive protection for a period of fifteen years because "new industrial products and processes are considered to be of more immediate consequence to the economic development of the country than works of a more aesthetic and cultural nature."\textsuperscript{129} Therefore, because software is of high utilitarian value to Brazil's economic development and social structure,\textsuperscript{130} its term of protection should correspond with the interests and needs of the Brazilian people.

Second, the Brazilian government expressed fears that copyright protection would not permit disclosure of the technology.\textsuperscript{131} In the case of a designer of an invention or creation seeking patent or trademark protection, such individual must submit a descriptive report regarding the invention to Brazil's Patent and Trademark Office. This obligation of the inventor is required so that once the product falls into the public domain, the public will have adequate information upon which to use, alter, or improve the creation.\textsuperscript{132} Under copyright law, the software publisher has no such obligation to give an explanation relating to the process of development nor a description of the work itself.\textsuperscript{133} The effect this nondisclosure practice might have, as argued by the Brazilian government, would be continuous protection of the software well after it fell outside legal protection and entered the public domain.\textsuperscript{134}

Brazil's third reason for resisting the application of copyright law was that the control over payment of royalties resulting from copyright is less strict, thus leaving the government with diminished control.\textsuperscript{135} In Brazil, the Patent and Trademark Office's exercise of control over copyright royalty fees is much less domineering than with patents, trademarks and other technology.\textsuperscript{136}

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{128} Fischer, The Software Law, supra note 78, at 6 (specifying that the period for which inventions are protected is 15 years).
\item\textsuperscript{129} Id.
\item\textsuperscript{130} Casella, supra note 19, at BR-1; Steinhardt & Neff, supra note 9, at 141; Doane, supra note 48, at 465.
\item\textsuperscript{131} Casella, supra note 19, at BR-7.
\item\textsuperscript{132} Fischer, The Software Law, supra note 78, at 6.
\item\textsuperscript{133} Fischer, The Software Law, supra note 78, at 6. Copyright law is extended to works of an artistic, literary, or cultural nature. Gasaway & Want, supra note 27, at 160. Computer software is included within this group as a literary work. Id. Most countries find copyright protection for software under the guise of software as a literary work, a work of cinematography, or within a catchall clause of a sui generis copyright statute. Id.
\item\textsuperscript{134} Fischer, The Software Law, supra note 78, at 6 (describing the Brazilian government's resistance against applying copyright law to protect software because it would allow software to function as a "black box," never allowing its technology into the public domain).
\item\textsuperscript{135} Casella, supra note 19, at BR-7.
\item\textsuperscript{136} Fischer, The Software Law, supra note 78, at 6.
\end{itemize}
\end{footnotesize}
2. **Sui Generis Protection of the 1987 Software Law: Unique Features**

The Software Law’s scope of protection is extremely limited to the specific subject of computer programs, and operates under copyright principles adapted to the unique requirements of computer software. Brazilian Copyright Law protects the authorship rights flowing from the creation of computer software. These authorship rights apply equally to nationals and foreigners alike, as required under the Berne Convention and the Universal Copyright Convention. Signatory countries to these conventions enjoy treatment under the domestic law of any other signatory countries if reciprocal treatment is likewise granted.

Brazil’s protection of computer software through its *sui generis* Software Law treats computer software differently in comparison to other copyrightable works. Most significant in the Software Law is the period of protection granted to authors in their creations. The Law allows for the protection of computer software for a term of twenty-five years beginning from the introduction of the software in any country. This is not an adequate period of protection for

---

137. Casella, *supra* note 19, at BR-8 (stating that the protection of operating system programs is not covered by the law and the Brazilian courts are the body which determines the scope of the protection).


140. 2 Paul Goldstein, *Copyright* 676 (1989). To obtain relief against the illegal and unauthorized use of one’s creation in another country, U.S. copyright owners must establish that their work is entitled to copyright protection in that country and that they own the copyright in that country. *Id.* Establishing eligibility for protection under the copyright law of a foreign country will usually depend upon compliance with one of four conditions. *Id.* First, the author of the work must show he is a national or domiciliary of the foreign country. Second, the author of the work in a national or domiciliary of a country with which the foreign country has established copyright relations through a multilateral or bilateral treaty or through proclamation. Third, the work was first published in the foreign country. Or fourth, the work was first published in a country with which the foreign country has established copyright relations. *Id.*

141. Casella, *supra* note 19, at BR-8. Authorship rights are granted to individuals from countries granting reciprocal treatment to Brazilian authors in their country. Boyle, *supra* note 11, at 298. This occurs as a result of Brazil membership as a signatory country to the Berne Convention and the Universal Copyright Convention. Universal Copyright Convention of June 19, 1970, *supra* note 91. These conventions require the application of the principle of national treatment. Berne, *supra* note 92, at art. 5(1); Universal Copyright Convention of June 19, 1970, *supra* note 91, at art. II. 1-2. This principle states that a country will protect the works of foreign nationals on the same terms that it extends to works of its own nationals. Goldstein, *supra* note 140, at 681.

142. See Berne, *supra* note 92, at art. 5(1).


144. Goldstein, *supra* note 140, at 681. This principle states that a country will protect the works of foreign nationals on the same terms that it extends to works of its own nationals. *Id.*


146. Fischer Interview, *supra* note 30.

147. Brazilian Law No. 7646 of Dec. 18, 1987, *supra* note 8, Title II, art. 3.
1995 / Protecting Computer Software Against Copyright Violation in Brazil

computer software and is a glaring violation of the applicable minimum standards of protection required by the Berne Convention to which Brazil is a signatory member.

Also unique to the 1987 Software Law is its preservation of the market reserve. The requirement that a non-national software application be dissimilar to a nationally manufactured application must be satisfied prior to its being marketed in Brazil was met with fierce international opposition. Brazil's application of the similarity test has proven effectively inconsequential to the importation and marketing of non-national software applications in Brazil. Less than one percent of non-nationally manufactured software has been excluded from Brazil's market because a similar national application exists. In October 1990 the Brazilian government announced that it would suspend the market

148. Steinhardt Interview 1/11/95, supra note 3. Subsequent revisions of a computer program may still retain components of the earlier version. Id. Thus, if a later version of a program is released more than 25 years after a component of the application was released, that component may be susceptible to reproduction without the authors of the application receiving compensation for their efforts. Id.

149. Casella, supra note 19, at BR-8.

The (25 year) term of protection ... is a glaring violation of the Berne Convention. Twenty-five years is the minimum term of protection for works of applied art, which is a spiritual conception that matches aesthetic and utilitarian elements. However, under Brazilian law, an applied art work is protected only if its artistic value is separate from its industrial nature. Hence it is difficult to fit software into this category.

Id.; but see, 2 L.J. KUTTEN, COMPUTER SOFTWARE: PROTECTION, LIABILITY, LAW, FORMS 11-45-11-46 (1992) (finding that each country can decide for itself whether or not a computer program on magnetic media qualifies for protection).

150. See Berne, supra note 92.

151. Brazilian Law No. 7646 of Dec. 18, 1987, supra note 8, at Title III, art. 8, para 2 (declaring that admission of a software application published by a non-national company is premised upon the determination by the Special Informatics Office that there is no similar software developed in Brazil by a national company); see infra, notes 190-197 and accompanying text (defining the Brazilian application of the market reserve in an attempt to stimulate Brazil's domestic informatic market).

152. Brazilian Business Groups Are Backing Same Changes In Informatics Law U.S. Is Seeking, 4 Int'l Trade Rep. (BNA) 198, Feb. 11, 1987 (quoting a report from the Brazilian Society of Computer Users (SUCESU) saying that the SEI can deny a copyright registration on the vague grounds of national similarity, and that such determination is extremely difficult and highly subjective, and this is generally an unacceptable measure); see also 4 Int'l Trade Rep. (BNA) 387, Mar. 18, 1987, supra note 76 (reporting the testimony of William K. Krist of the American Electronics Association at the U.S. Trade Representative's hearings on the Brazil 301 case and his disapproval of the market reserve because it harms both Brazilian and international interests); 4 Int'l Trade Rep. (BNA) 1419, Nov. 18, 1987, supra note 109 (presenting U.S. disapproval with Brazil's market reserve policy in the then proposed Software Law); 4 Int'l Trade Rep. (BNA) 1451, Nov. 25, 1987), supra note 112 (describing Brazilian Senator Roberto Campos' opposition to the Brazilian policy of the market reserve in the informatics sector and his offering of a revised version without such regulations); Industry Testifies On Brazilian Retaliation As Administration Moves Toward Sanctions, 4 Int'l Trade Rep. (BNA) 1590, Dec. 23, 1987 (presenting the American Electronics Association's opposition to the prohibition of non-national informatic products upon a finding of similarity with a "similar" Brazilian product).

153. Fischer Interview, supra note 30.

154. Id.
reserve policy on computer goods and software on October 29, 1992. However, to date the policy still remains officially within the law.

III. THE CURRENT BRAZILIAN SOFTWARE MARKET

A. Software Market Sector Demographics

I. Brazil’s Computer Market

In 1994 Brazil became, for the first time in its history, the largest Latin American market for computer sales with 480,000 units sold. Official estimates place the total number of computers in Brazil between 1.5 and 2.5 million, with unofficial estimates ranging as high as 4 million when including the number of illegally imported contraband computers. Throughout the computer industry, experts recognize Latin America, most notably Brazil, as the fastest growing computer technology market in the world.

Between 1984 and 1992, the Brazilian government attempted to develop a local computer industry that would compete with the United States and Asia by implementing stringent import barriers to foreign manufactured technology. This protectionist trade policy proscribed tariffs of up to seventy percent on imported goods. Coupled with large importation taxes, computer prices were inflated four to five times those in the United States for similar products. The Brazilian consumer was thus forced to choose between paying exorbitant prices for foreign manufactured computer products or accepting outdated and overpriced

---

155. Brazil to End Market Reserve, supra note 82 (recognizing that the manufacture of personal and mini-computers is still reserved exclusively for Brazilian companies). Brazil, lacking the manufacturing capability to provide advanced mainframe computers, permits imports. Id.
156. Fischer Interview, supra note 30.
157. Farber, supra note 2.
158. Reese Erlich, Foreign Firms Flood Market Making Local Industry Reel, CHRISTIAN SCI. MONITOR, Aug. 25, 1994 (stating that because of the large amount of contraband smuggled in every year to avoid taxes, the exact number of computers in Brazil is uncertain).
159. Fischer, The Software Law, supra note 78, at 12 (stating that due to high tariffs and taxes, more than 50% of microcomputers sold in Brazil are estimated to be imported through smuggling).
160. Fischer, The Software Law, supra note 78.
161. Norvell & Katz, supra note 1 (finding that in 1994, Compaq, Inc.’s sales increased by 100% in Latin America, compared with 50% in the United States and 40% in Europe). Additionally, Compaq recently opened a US$30 million computer-manufacturing plant near the city of Jauariuna, about 75 miles north-west of São Paulo. Id.
162. Erlich, supra note 158.
163. Id.
164. Id.
165. Id.
equipment manufactured by a handful of local companies who divided the market among themselves.166

In the two years following the opening of its markets, Brazil has become the fastest growing computer market in the world.167 Brazil’s packaged software market is expected to rise by fifteen percent per-year until 1997, from US$829 million to US$1.5 billion.168 In addition, software sales in Latin America are growing at a rate three times that of North America and Western Europe. This success is not expected to be short-lived in view of the number of multinational technology firms concentrating their efforts toward Latin America and focusing primarily upon Brazil.170

2. Effects of Brazilian Software Piracy Upon U.S. Trade

Growth in the computer industry dictates an increased demand for software applications.171 Any economic benefit to be realized by software publishers from a rapidly expanding computer market, like Brazil, must come from the legal acquisition of their manufactured software by the market’s consumers. In 1993, the rate of legally acquired software in Brazil was only eleven percent.172 Thus eighty-nine percent of all software used on Brazilian computers was the product of illegal reproduction or piracy.173 In contrast, only thirty-seven percent of all software in the United States was the product of piracy.174 While Brazil’s percentage of legally acquired software in 1994 rose to twenty-six percent, this still

---

166. See generally Adrian Dickson, Brazilian Computer Show Fensoft Opens, REUTERS, July 18, 1994.
167. Brooke, supra note 2. When compared to Japan, who had 12 million computers in 1993, it is evident that Brazil stands to create impressive business possibilities for U.S.-based computer technology manufacturers. Farber, supra note 2.
170. Norvell & Katz, supra note 1 (quoting Tod Rowe, Apple Computer’s director of Latin American marketing, as saying a robust economy and a furthering of plans to increase Apple’s position in the Brazilian market). Apple expects to reach this goal by increasing sales in Brazil by 80% a year in the hopes of capturing, by 1998, 10% of the Brazilian market). Trade Roundup: A Roundup of Important Trade News in the Americas, U.S./LATIN TRADE, July 1995, at 16 (reporting that Apple Computer expects to increase its market share in Latin America). Apple’s increase will be achieved by building business infrastructure in-country. Id. In Brazil, for example, Apple opened a subsidiary this year and is developing business relationships with distributors, warehouses and others trade intermediaries. Id.
171. Steinhardt Interview 1/11/95, supra note 3.
174. Id.
falls well below the percentage of legally acquired software in many other countries.  

The costs of illegal reproduction to U.S. software manufacturers are best seen when viewed in relation to possible total revenue. The Brazilian market potential of revenues from legally acquired software in 1994 was estimated at between US$800 and US$900 million. Revenues from sales of U.S. manufactured software applications sold in Brazil for the first three quarters of 1994 were US$24.2 million. Total sales for 1994 were $41.2 million, with the fourth quarter alone generating US$16.9 million. When comparing total revenue from U.S. publishers with total potential revenue, the difference appears staggering:

<table>
<thead>
<tr>
<th>Country</th>
<th>Piracy Rate</th>
<th>Piracy Losses (US $ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>39%</td>
<td>$96.1</td>
</tr>
<tr>
<td>China</td>
<td>98%</td>
<td>$187.2</td>
</tr>
<tr>
<td>Japan</td>
<td>56%</td>
<td>$1,309.3</td>
</tr>
<tr>
<td>Korea</td>
<td>82%</td>
<td>$184.6</td>
</tr>
<tr>
<td>Taiwan</td>
<td>62%</td>
<td>$36.4</td>
</tr>
<tr>
<td>Thailand</td>
<td>92%</td>
<td>$54.8</td>
</tr>
<tr>
<td>France</td>
<td>62%</td>
<td>$481.7</td>
</tr>
<tr>
<td>Spain</td>
<td>76%</td>
<td>$137.8</td>
</tr>
<tr>
<td>Italy</td>
<td>68%</td>
<td>$263.9</td>
</tr>
<tr>
<td>UK/Ireland</td>
<td>31%</td>
<td>$95.2</td>
</tr>
<tr>
<td>Mexico</td>
<td>67%</td>
<td>$95.2</td>
</tr>
<tr>
<td>U.S.</td>
<td>25%</td>
<td>$1,045.5</td>
</tr>
<tr>
<td>Canada</td>
<td>26%</td>
<td>$83.0</td>
</tr>
<tr>
<td>Russia</td>
<td>95%</td>
<td>$144.5</td>
</tr>
<tr>
<td>South Africa</td>
<td>33%</td>
<td>$26.5</td>
</tr>
</tbody>
</table>

PC Software Industry Lost $8.08 Billion to Pirates in 1994, supra note 7. See infra note 185 (explaining the piracy rate and piracy loss estimation methodology).

176. 11 Int'l Trade Rep. (BNA) 552, Apr. 6, 1994, supra note 5.


between US$780 and US$880 million. However, the Brazilian market is quickly shortening the distance between the two figures.

In the first three quarters of 1994, total revenue from U.S. manufactured software increased ninety-six percent from the same figure in 1993. Sales in the third quarter alone increased 104 percent. Comparable growth rates in the U.S. and Canadian markets were only fifteen percent for the third quarter and eleven percent for the first three quarters. William H. Gates, President of the Microsoft Corporation, predicted that in the second half of the 1990s Latin America would become his company’s fastest growing market.

Enthusiasm to profit from such growth must be tempered with the historically widespread piracy of software in Brazil. In 1993, eighty-nine percent of all software used in Brazil was the product of piracy. This translates into U.S. software manufacturers experiencing US$161 million in unrealized profits in 1994 as a result of Brazilian piracy of U.S. manufactured software applications.

179. SPA Press Release, Mar. 28, 1994, supra note 173. Sales reported are from the SPA’s International Data Program, and represent total revenues in these regions of the 40 primarily U.S. based software firms participating in the SPA’s International Data Program. Id. The companies submit their confidential sales data to the accounting firm of Arthur Andersen, which prepares the report for the SPA. Id. While U.S. companies have the dominant market share in most of these regions, the figures reported should not be taken as an estimate of market size. Id. Rather, they represent total sales of the reporting companies. Id.


181. Id.

182. Brooke, supra note 2. Microsoft, Inc. is a Redmond, Washington based software developer. 1994 Book of Lists: Supplement to the Puget Sound Business Journal, PUGET SOUND BUS. J., 1994, at 34A. Microsoft employs over 12,000 people and earned US$2.758 billion in total revenue from software development and sales. Id. It develops programming languages, applications, software and operating systems for business, education and home use. Id.

183. See supra notes 172-175 and accompanying text.

184. See supra note 5.

185. PC Software Industry Lost $8.08 Billion to Pirates in 1994, supra note 7. Piracy Estimation Methodology is as follows:

• SPA uses four sets of data:
  1. Personal computer [PC] hardware sales, by year, and by market (International Data Corporation).
  2. PC business software sales, by year (SPA Data Program). The SPA analysis includes all varieties of business applications—everything from word processors, spreadsheets, databases and presentation graphics to e-mail clients, programming languages and tools, graphics and desktop publishing packages, and utilities such as screen savers, and anti-virus packages. In all, the SPA analysis includes sales from 25 types of business applications.
  3. Arithmetic average cost per business personal computer software application (SPA Data Program).
  4. Average number of applications used per personal computer, by market (SPA and member research and industry sources).

• One assumption:
  None of the applications sold are sold to the installed base

• The analysis:
  \# business applications \_used, home = (home PC sales) x (\# bus. app. per home PC)
  \# business applications \_used, business = (bus. PC sales) x (\# bus. app. per bus. PC)
  \# applications \_used = (\# bus. app. used, home) + (\# bus. app. used, bus.)
Unrealized profit resulting from the piracy of U.S. manufactured software is profit that has been stolen. These losses can be detrimental to a company when seen in relation to the immense amount of capital investment necessary to create a software application.

B. Recent Economic and Political Transformations

1. The Cardoso Administration

On February 15, 1995, Fernando Henrique Cardoso was inaugurated as the President of Brazil on a pro-business, constitutional reform ticket. President Cardoso is the first democratically elected president to follow the humiliating impeachment of Fernando Collor de Melho and only the second democratically elected president in Brazil’s history. Most notably among President Cardoso’s proposed policy directives is his intention to further open Brazil’s historically protectionist markets to foreign competition.

In the past, participation in the Brazilian computer marketplace was controlled by the protectionist mandate of the government-imposed market reserve. The market reserve represented Brazil’s attempt to stimulate the national economy and industrial infrastructure by reserving for local businesses certain market

\[
\text{# applications pirated} = (\text{# applications used}) - (\text{# applications bought})
\]

\[
\text{piracy loss} = (\text{# applications pirated}) \times (\text{arithmetic avg. cost per application})
\]

\[
\text{piracy rate} = (\text{# applications pirated}) / (\text{# applications used})
\]

The revenue loss figure of US$161 million is only representative of losses of the software industry. It does not include revenues lost to distribution channels or Value Added Tax (VAT) sales and other taxes lost by governments, nor does it reflect losses to consumer application publishers or publishers of operating systems.

Id.

186. Steinhardt Interview 1/11/95, supra note 3.
187. Id. (explaining that included in a company’s market research before investing capital into a program is the amount of revenue to be realized from the particular targeted market. When a significant portion of the market is receiving the benefit of a company’s investment via the manufactured product without compensating the manufacturer the company is in actuality losing money. Id.
188. Equity Forecasts 1995, EUROMONEY, Feb. 1995, at 8; David R. Sands, South America’s Economic Bigfoot, Brazil, Steps Out of the Shadows, WASH. TIMES, Dec. 4, 1994, at A16 (quoting Alexandre Barros as saying “[the vote for Cardoso endorsed capitalism and made it clear that the process of modernization of Brazil is irreversible”).
189. Brazil Makes the Right Call, U.S./LATIN TRADE, July 1995, at 10 (explaining that the privatization boom in Brazil has resulted in a major victory for President Cardoso as it allows him to keep campaign promises of expanding the economy by attracting more foreign and local investment); Ricardo Silvagni, Brazil: Why Now? The Rewards Outweigh the Risks, Most Savvy Traders Have Concluded, U.S. LATIN TRADE, July 1995, at 112 (outlining five points that multinational corporations must be aware of when making a decision to go to Brazil, including the unstoppable trend toward economic reform in Brazil, President Cardoso and his administration’s commitment to implement much needed reforms, the impact of the Congress, and the public support for the badly needed reforms to open the market to foreign competition). Id.
190. See supra notes 76-84 and accompanying text (outlining the Brazilian market reserve policy as it was applied to the computer market).
sectors in which foreign competition was, in effect, barred from participation. Application of the market reserve to Brazil's informatic sector was done with the intention of creating a local Brazilian computer industry to rival that of the United States and Asia.

Prices for foreign manufactured computer products became inflated four to five times the prices of identical products sold in the United States. Coupled with Brazil's poor intellectual property rights protection and the lack of foreign competition, the Brazilian computer industry became static and the rate of new developments fell behind those of Brazilian business' international counterparts.

A solution to the problem of acquiring superior foreign computer products at a reasonable price was found in the illegal and unauthorized reproduction, or piracy, of the desired product, whether it be hardware or software. This piracy in the software sector has resulted in a societal attitude where presently seventy-six percent of all software used in Brazil is the product of piracy.

The Cardoso Administration's current trade and import policies seek to increase the opportunities of Brazilian consumers to enjoy the benefits a truly competitive market confers by reducing the level of barriers placed on foreign manufactured goods. Prior to his election as President in October of 1994, Brazilian Decree Gives Preference to Locally Produced Computers, 11 Int'l Trade Rep. (BNA) 428 (Mar. 16, 1994) (reporting that Brazil utilized a market reserve for small-to-medium sized computers to nurture and support a local manufacturing base).

See 11 Int'l Trade Rep. (BNA) 428, Mar. 16, 1994, supra note 193; Fischer Interview, supra note 30.


PC Software Industry Lost $8.08 Billion to Pirates in 1994, supra note 7.

Angus Foster, Peso Crisis Casts Shadow Over Brazilian Economy, FIN. TIMES LONDON, Jan. 14, 1995, at p.78 (describing Brazil as unique from Mexico as a result of Cardoso instituting measures to eradicate market restrictions which had historically been an integral part of the Brazilian market); Amaldo Cesar, Brazil-Economy: Stock Market Fall Fails to Dampen Enthusiasm, INTER PRESS RELEASE, Jan. 16, 1995 (distinguishing the Mexican peso devaluation and resulting market collapse in Mexico to the strong and vibrant Brazilian market); see Gustavo Lombo, Money & Investing: World Markets Review, FORBES, Jan. 16, 1995, at 110 (describing the Cardoso Administration as dedicated to market reforms); Brazil's Cardoso To Sign Order Easing Imports, REUTERS, LTD., Feb. 15, 1995; Contra, Brazilian Decree Gives Preference to Locally Produced Computers, 11 Int'l Trade Rep. (BNA) 428 (Mar. 16, 1994) (reporting that the Brazilian government, on March 2, 1994, issued a new decree that further closed market access to foreign telecommunications companies and that U.S. Secretary of Commerce, Ron Brown, sent a letter of protest about the new measure to Brazilian Minister of Science and Technology, Jose Vargas, stating that this recent action was a step backward to the world trend of opening technology markets).
Cardoso was Brazil's finance minister. In addition to establishing the new currency program that reduced monthly inflation from seventy percent down to between one and three percent, he began lowering import barriers for foreign goods. In October of 1994 alone, tariffs on over 13,000 products were reduced twenty to thirty-five percent. Brazil in 1994, imported US$32.1 billion, a twenty-six percent increase from 1993. This trend of lowering import taxes and increasing imports is a continuing process throughout the Cardoso presidency.

The effect the Cardoso Administration’s trade policy will have on the computer software market is two-fold. First, lowered import taxes on foreign manufactured software means those products’ prices will not reflect artificial costs imposed by the Brazilian government, making the product economically unattractive to the consumer. This will increase the Brazilian consumer’s receptivity to foreign software. Second, where prices for software applications decrease, the revenue loss attributable to software piracy also decreases. When the superior foreign software becomes price competitive with the lower-priced, (though inferior) local software, the consumer purchases the foreign product rather than pirating it.

To continue increased trade growth, the Cardoso Administration recognizes it must provide protection against local illegal reproduction of the imported goods. Protecting the intellectual property of imported goods provides the incentive through which greater trade and economic prosperity will continue.

Because investors tend to be adverse to unreasonable or excessive risk absent

200. James Bruce, Brazilian Mandate; Fernando Henrique Cardoso Wins the Presidency, and With It an Opportunity to Transform the Giant of South America, U.S./LATIN TRADE, Nov. 1995, at 14.
201. Trade Roundup: Brazil-Tariffs Cut, U.S./LATIN TRADE, Nov. 1994, at 21 (reporting that the Brazilian government announced it was lowering import duties on 13,000 products). Lowering the tariffs barrier greatly increased imports to Brazil, resulting in one of Brazil’s biggest air cargo overflows in its history. James Bruce, Brazil: Clipped Wings, U.S./LATIN TRADE, Jan. 1995, at 10. Shipments were taking 20 days to clear customs and cargo overflowed warehouses. Id. This problem did produce reforms in the transportation of cargo. Id. Air cargo traffic from the United States to Brazil has jumped 50% since the introduction of the Real Plan on July 1, 1994. Trade Roundup: Brazil-Booming Demand, U.S./LATIN TRADE, Feb. 1995, at 19. But see Brazil: Boom-Busting, U.S./LATIN TRADE, May 1995, at 12 (reporting that in May 1995, a 70% tariff was imposed on automobiles and several other consumer goods).
203. Cf. Id.
204. SPA Press Release, Mar. 28, 1994, supra note 173 (stating that while the decrease in the average retail price for applications actually increased the piracy rate, sales increased by 37%). Thus revenue loss from the price decrease becomes less as it is set off against the increase in sales. Id.
205. Cf. Id.
206. 59 Fed. Reg. No. 42 (1994) (reporting that the U.S. relaxed USTR trade sanctions after Brazil stated it would undertake all appropriate measures to strengthen intellectual property rights); but see Steinhardt Interview 9/11/95, supra note 34 (stating that the Cardoso Administration and specific Senators do realize the importance of increasing protection for intellectual property rights though it is a difficult goal to achieve).
207. Doane, supra note 48, at 469-470.
adequate intellectual property protection, many investors may shift their invest-
ments from intellectual property-dependent projects to less productive, albeit less
risky, investments.208

The Cardoso Administration made great strides towards decreasing the risks
of investing in intellectual property-dependent activities.209 It introduced signi-
ficant legislation to the Brazilian Congress requiring heightened protection of
patent, trademark, copyright, and trade-secret rights.210 More importantly, the
Cardoso Administration reduced barriers to international access to the Brazilian
markets.211

2. The New “Real”

The cornerstone of Brazil’s economic resurgence, both in the international
and national marketplace, was the establishment of the new Brazilian
currency—the “Real.”212 Beginning on July 1, 1994, the Brazilian government
removed 1200 metric tons of inflated cruzeiros reais from circulation, replacing
them with 6.66 billion Real backed by US$40 billion of reserves.213

208. Doane, supra note 48, at 469-470.

209. Brazil: Stranger IP Rights on the Way, CROSSBORDER MONITOR, Mar. 16, 1994 (reporting that for
Brazil to avoid U.S. trade sanctions, the Brazilian government must improve copyright legislation and
enforcement). Furthermore, Brazil must liberalize its rules for marketing computer software which would also
result in lower taxes for the item. Id. Brazilian Congress to Weigh Law Strengthening CD Rental Protections,
12 Int’l Trade Rep. (BNA) 307, Feb. 15, 1995 (finding that the Brazilian Congress is considering passage of
new laws that would strengthen a person’s ability to copy CD-ROMs without the permission of the author).
Presently CD rental stores never ask for the author’s permission when renting a CD-ROM to a customer. Id.
The new law would forbid disk renters to rent any CD-ROM without a sticker saying the creator and the
Brazilian Association of Software Companies have approved the rental. Id.

210. Steinhardt Interview 9/11/95, supra note 34 (stating that Brazil eradicated recently a tax imposed
upon foreign manufactured software); see infra notes 232-244 and accompanying text (discussing new and
proposed legislation for the protection of computer software).

211. Brooke, supra note 2 (reporting that Brazil, to encourage trade in legal software, is planning to
abolish two restrictions on imports—registration of foreign software with the government and a tax on foreign
exchange transfers for purchases of software from overseas); James Bruce, Brazil Programmers Seek Niche
in Open Market, J. Com., Sept. 8, 1994, at 6 (stating that the Brazilian software sector is seeking to establish
a niche in export markets for domestically developed software as the Brazilian Government opens its
previously restricted market to foreign software products).

212. See 60 Fed Reg. 3394 (1995) (emphasizing that the U.S. Department of Commerce has termed
Brazil a “Big Emerging Market” (BEM)). A BEM is a country having a large geography, significant
populations, and considerable markets for a wide range of products. Id. Virtually all BEMs have strong rates
of growth or hold promise for future economic expansion and that most of these countries are of major political
importance within their regions; “moreover, they are regional economic drivers—their growth will engender
further expansion in neighboring markets.” Id. Lenilson Ferreira, Brazil is Magnets for American Investment,
JAPAN ECON., NEWSWIRE, Feb. 16, 1995 (describing the new economic reality of Brazil as the result of the Real
Plan).

213. Bruce, Score One For Brazil, U.S./LATIN TRADE, Sept. 1994, at 10 (explaining that the new
currency program which took affect on July 1, 1994 promptly reduced inflation from 48% in June to 6.08%
in July, with inflation now hovering from 1-2% monthly).
The *Real* was introduced at R$1.08 to the dollar.\(^ {214} \) Inflation previously reaching fifty to seventy percent now fluctuates between one and three percent monthly.\(^ {215} \) Many prices for goods actually decreased\(^ {216} \) and credit card sales, in June alone, jumped over fifty percent.\(^ {217} \)

The reduction in monthly inflation coupled with predictable economic indicators creates a perception of economic stability injecting needed confidence into Brazil’s consumers.\(^ {218} \) Credit card use among Brazilian consumers has jumped markedly since the inception of the *Real*,\(^ {219} \) with major credit card companies predicting Brazil to be their top market well into the next century.\(^ {220} \) The government, fearful of any negative repercussions this increase in consumer credit spending may create, has implemented new rules requiring all credit card balances be paid in full each month, as part of their anti-inflation plan.\(^ {221} \)

Increased consumer confidence along with such rapid growth in credit card usage will fuel Brazil’s already growing computer software markets.\(^ {222} \) As the Cardoso Administration gradually eliminates import taxes, duties, and tariffs, the *Real* continues to provide the means to purchase the influx of foreign software. As a result, purchasing illegally reproduced copies will become less attractive.\(^ {223} \) As the rate of piracy progressively lowers, consumers will come to see the benefits of buying the original software product as opposed to purchasing the...
The superior nature of "legitimate" software exists in the method of manufacturer support, documentation, as well as acquiring updates or corrections of the software from the manufacturer. Clearly, Brazilian firms that do pirate software cannot offer the full-range of services available from the original software publisher.

IV. THE CHANGING ENVIRONMENT OF BRAZILIAN INTELLECTUAL PROPERTY PROTECTION

There is no "world copyright law." However, under the principal of national treatment, international conventions and treaties obligate countries to extend their own intellectual property laws to members of reciprocating countries. Under this principle of national treatment, a U.S. national will receive the same treatment under the law of the foreign country as the foreign country affords to its own nationals. However, this national treatment comes under the host country’s domestic law, not under international law. In the case of Brazil, ex-
ternal pressures have often dictated the type of national treatment Brazil would accord to intellectual property of foreigners.\textsuperscript{231}

A. Pending Changes to the 1987 Software Law

The Executive Branch of Brazil, in May of 1991, sent to the Brazilian Congress a new bill that would revamp the 1987 Software Law.\textsuperscript{232} Since its inception, the bill has undergone vast amendments which have drastically changed its original format.\textsuperscript{233} However, there are many original elements of the bill still contained in the legislation.\textsuperscript{234} Regardless of any changes to the 1987 Software Law, this new legislation still has not passed formally into law.

The bill would officially eradicate the test of similars and market reserve from the legislation.\textsuperscript{235} The new text proposes to eliminate the need to enroll the foreign manufactured software with the INPI as a requisite to marketing in Brazil.\textsuperscript{236} Also struck from the 1987 Software Law by the newly proposed legislation will be the software distribution market reserve.\textsuperscript{237} Any software manufacturer may be able to distribute software independently from the origin of its capital or of its controlling shareholders.\textsuperscript{238} The new legislation also authorizes end-users in Brazil the right to purchase software in any quantities and to import directly from any country.\textsuperscript{239} Also included within this proposed legislation is the application of more flexible criteria for determining the payment due to foreign software property holders.\textsuperscript{240}

Notably, under the new legislation, the intellectual property protection chapter of the law remains essentially unaltered,\textsuperscript{241} thereby creating a tension between the international computer industry and Brazil.\textsuperscript{242} The proposed law mandates the continued application of the twenty-five year protection period for

\textsuperscript{231} See supra notes 61-115 and accompanying text (discussing the U.S. imposition of trade sanctions to persuade Brazil into legislating stronger national support for computer software).
\textsuperscript{232} Brazilian House of Representatives Legislative Bill No. 997 of 1991 (by the Executive Branch) Message No. 229/91 [hereinafter Bill No. 997]. See Fischer, The Software Law, supra note 78, at 10.
\textsuperscript{233} Steinhardt Interview 9/1/95, supra note 34.
\textsuperscript{234} Id.
\textsuperscript{235} Fischer, The Software Law, supra note 78, at 10.
\textsuperscript{237} Id. at 3
\textsuperscript{238} Id.
\textsuperscript{239} Id. at 3-4.
\textsuperscript{240} Id. at 4.
\textsuperscript{241} Fischer, The Software Law, supra note 78, at 10; but see 12 Int'l Trade Rep. (BNA) 307, Feb. 15, 1995, supra note 209 (reporting that the Brazilian Congress is set to discuss a new draft law that would expressly outlaw the rental of compact discs without the owners permission).
\textsuperscript{242} Steinhardt Interview 1/11/95, supra note 3.
software.\textsuperscript{243} However, the twenty-five year protection fails to satisfy Brazil's obligation under the GATT/TRIPs provisions.\textsuperscript{244}

B. GATT/TRIPs Impact

From its inception, the General Agreement on Tariffs and Trade (GATT)\textsuperscript{245} has been concerned mainly with the reduction of all trade and tariff barriers and any other conceivable obstacle to equitable international competition.\textsuperscript{246} The United States asserts that inadequate intellectual property protection leads to trade distortions and that the impairment of concessions due to intellectual property piracy amounts to a non-tariff trade barrier.\textsuperscript{247}

GATT acts as more than a single treaty and involves a complex set of over 100 agreements revised on a periodic basis.\textsuperscript{248} Concerted efforts by the U.S. government and its business community placed international intellectual property rights on the negotiating agenda for the Uruguay Round of Negotiations of the GATT.\textsuperscript{249} Concern for the international protection of intellectual property rights

\begin{itemize}
\item \textsuperscript{243} Bill No. 997, supra note 232, at ch. II, art. 3.
\item \textsuperscript{244} See infra notes 245-264 and accompanying text.
\item \textsuperscript{246} Gabriel E. Larrea Richerand, \textit{GATT, Intellectual Property Rights and the Developing Countries}, 25 \textit{COPYRIGHT BULL.} 4, 4 (1991); see GATT, supra note 245, at Preface.
\item \textsuperscript{247} See U.S. Framework Proposal to GATT Concerning Intellectual Property Rights, 4 \textit{Int'l Trade Rep.} (BNA) 1371, Nov. 4, 1987 (proposing measures to reduce impediments to legitimate trade in goods and services by increasing enforcement procedures and economic deterrents); see also \textit{State Department Program Examines \textquoteright \textquoteright GATT and Intellectual Property,\textquoteright\textquoteright 31 \textit{PAT. TRADEMARK \\& COPYRIGHT J.} (BNA) 497, Apr. 10, 1986 (presenting a myriad of views regarding the procedures by which the United States could improve intellectual property protection in foreign markets).
\item \textsuperscript{249} \textit{Ministerial Declaration on the Uruguay Round, Punta del Este}, reprinted in \textit{BASIC INSTRUMENTS AND SELECTED DOCUMENTS} 19, 25 (33d Supp. 1986). United States Trade Representative (USTR) Ambassador Mickey Kantor stated, regarding the importance of intellectual property to the U.S. government:
\begin{quote}
One of my principal responsibilities as USTR is to open foreign markets and break down barriers to U.S. manufactured goods, agricultural products, and services. This includes pursuing the strong protection of U.S. intellectual property, so important to our high technology industries. When all is said and done, opening foreign markets is our main objective in the Uruguay Round; it is the impetus, from our standpoint, for the North American Free Trade Agreement (NAFTA); it will be a principal focus of our efforts with respect to Japan and China, as well as in other nations around the world. . . . Consequently, we need to use every tool at our disposal multilaterally where possible, and bilaterally where necessary, to make sure that other markets are comparably open to our own.
\end{quote}
Doane, supra note 48, at 467-68 (quoting testimony of Ambassador Kantor, USTR, before the Senate Committee on Finance Mar. 9, 1993 (on file with \textit{The American University Journal of International Law and Policy}).
was also expressed by Japan and Western Europe. On December 15, 1993, the Uruguay Round of trade negotiations under the GATT concluded with the implementation of the Trade Related Aspects of Intellectual Property Rights (TRIPs).

The TRIPs component of the GATT mandates the establishment of substantive standards for intellectual property protection and requires mechanisms for the enforcement of rights. To this end, TRIPs employ the standard encompassed within the Berne Convention of September 9, 1886, For The Protection of Literary and Artistic Works as the method for the protection of computer programs. Article 10 of the TRIPs Agreement states that "[c]omputer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)."

The Berne Convention aims to achieve a universal system of protection by combining two principal methods. The Convention creates certain minimum standards of copyright law which must be followed by member states, while also requiring the principle of national treatment. This precludes any member state from maintaining formalities or registration requirements in its copyright law having the effect of excluding states from protection against the illegal reproduction of their work or providing lesser protection than to nationals. Yet, the Berne Convention does not refer specifically to computer programs, or any other...
computer related technology. Thus, the question of whether Berne protects computer software is answered definitively by the TRIPs component of the GATT.\footnote{259}

The TRIPs component's mandate requiring the protection of computer software as a literary work under the Berne Convention accomplishes two important goals. First, it applies copyright law to the international protection of computer software.\footnote{260} Second, it obliges parties to protect computer software for the life of the author plus fifty years.\footnote{261} To find that the Brazilian Software Law of 1987 meets the standards set forth under the TRIPs component of the GATT, to which Brazil is a signatory member, would be a strained interpretation. The 1987 Software Law accords merely twenty-five years of protection to computer software.\footnote{262} Brazil states, through this legislation, that it views computer software as a work of applied art.\footnote{263} It is difficult to find merit within this argument because the artistic value of software is intertwined within its industrial nature. Thus, to separate the two in order to accord a lesser standard of protection falls logically.\footnote{264}

C. Current U.S. Efforts

The United States imposed trade sanctions against Brazil on November 13, 1987, as a result of Brazil's failure to successfully legislate for the stronger protection of intellectual property rights.\footnote{265} In response, Brazil softened its hardline position on intellectual property and the Brazilian Congress legislated successfully a stricter software copyright law.\footnote{266} Yet, U.S. attention turned to Brazil once again in 1993 when the United States Trade Representative placed Brazil on its priority watch list for intellectual property violations.\footnote{267}

\footnote{259} Id.

\footnote{260} Berne, supra note 92, art. 2.

\footnote{261} Id. art. 7; but see Brazilian Law No. 7646 of Dec. 18, 1987, supra note 8, Title II, art. 3 (presenting the dilemma posed by the Brazilian government's strained interpretation of computer software as applied works of art).

\footnote{262} Brazilian Law No. 7646 of Dec. 18, 1987, supra note 8, Title II, art. 3.

\footnote{263} See supra note 151 (discussing that under Brazilian law applied art works are protected only if their artistic value is disassociable from their industrial nature). It is difficult to fit computer programs into this category. \textit{Id.}

\footnote{264} Casella, supra note 19, at BR-8. \textit{But see}, 2 L.J. KUTTEN, COMPUTER SOFTWARE: PROTECTION, LIABILITY, LAW, FORMS 11-45-11-46 (1992) (finding that each country can decide for itself whether or not a computer program on magnetic media qualifies for protection). In the case of Microsoft's \textsc{windows}, the artistic nature of the interface allows its industrial nature to be exploited. Steinhardt Interview 1/11/95, supra note 3.

\footnote{265} See supra notes 61-115 and accompanying text (discussing the U.S. influence behind Brazil's passage of the 1987 Software Law)

\footnote{266} See supra notes 61-115 and accompanying text.

\footnote{267} 58 Fed. Reg. 31788 (1993) (stating that the USTR has initiated an investigation under Section 302(b)(2)(A) of the Trade Act of 1974, as amended (The Trade Act) with respect to certain acts, policies and practices of the Government of the Republic of Brazil that deny adequate and effective protection of intellectual property rights).
Initially, Brazil did not derogate from its position that the 1987 Software Law was more than adequate for the protection of computer software from piracy.\textsuperscript{268} U.S. diplomatic relations eventually persuaded Brazil to see the possible flaws in its existing legislation.\textsuperscript{269} Far from passing new legislation, Brazil did agree to investigate the problem.\textsuperscript{270}

In the context of five rounds of discussions which occurred during the USTR’s 1993 investigation into Brazil’s intellectual property protection,\textsuperscript{271} Brazil and the United States reached an agreement in February 1994.\textsuperscript{272} During these diplomatic meetings the Brazilian delegation indicated that it would, in consideration of the USTR stopping its investigation, begin domestic reforms to improve both intellectual property protection and increase market access for products relying on the protection of intellectual property.\textsuperscript{273} Also, since the initiation of the USTR investigation, the TRIPs portion of GATT that had been approved provided even greater impetus for Brazil to enact legislation that would comport its laws with international agreements.\textsuperscript{274}

Brazil, by entering into this agreement with the United States, agreed to accelerate the legislation process to establish new laws to comply with the GATT/TRIPs standards for protection.\textsuperscript{275} As a result of the agreement, the USTR suspended investigatory action under Section 304 of the Trade Act of 1974.\textsuperscript{276} The USTR stated as follows:

> The USTR has made a positive determination pursuant to §304(a)(1)(A)(ii) [of the Trade Act of 1974]. Since the Government of Brazil has undertaken measures to significantly improve the protection and enforcement of intellectual property rights and market access for per-

\textsuperscript{268} Cf. id. (examining the USTR’s action here and Brazil’s subsequent inaction even following the February 1994 agreement with the United States, leads one to conclude that Brazil believes its 1987 Software Law and other intellectual property laws are more than adequate for international purposes).

\textsuperscript{269} Cf. 59 Fed. Reg. 10224 (1994) (proposed Mar. 3, 1994) (finding that the United States decided to grant Brazil an extension of time in which to revamp its current, though lacking, intellectual property legislation because the United States felt it was persuading Brazil into the hoped for act).

\textsuperscript{270} See supra notes 232-244 and accompanying text (explaining the new draft legislation for The 1987 Software Law). The Brazilian Congress already had new legislation awaiting passage that would amend the 1987 Software Law. Id.

\textsuperscript{271} China, Turkey, India, Brazil Faulted For Intellectual Property Inaction, supra note 19 (reporting that Brazil, as of February 15, 1995, had failed to meet deadlines to improve its copyright regime based on a February 1994 agreement with the United States).


\textsuperscript{273} Id.; 10 Int’l Trade Rep. (BNA) 726, May, 5, 1993, supra note 13 (“examining recent improvements, the USTR announced that Brazil has introduced amendments to a pending law on industrial property, intensified enforcement efforts on its trademark and copyrights law, and has issued new technology transfer regulations”).

\textsuperscript{274} Fischer Interview, supra note 30; Steinhardt Interview 1/11/95, supra note 3.

\textsuperscript{275} Steinhardt Interview 1/11/95, supra note 3.

\textsuperscript{276} See supra notes 63-74 and accompanying text (discussing the Super 301 activity where the President of the United States’ and USTR’s authority under such Act is granted).
sons relying on intellectual property rights and will take additional steps in the future in connection with its intention to implement the results of the Uruguay Round of Multilateral trade negotiations including the Agreement on Trade Related Aspects of Intellectual Rights, the USTR has decided to terminate this investigation and monitor implementation of these measures under §306(a)(2) [of the Trade Act of 1974].

In addition, the USTR has decided to revoke the government of Brazil’s identification as a priority foreign country under § 182 of the Trade Act. Brazil agreed to comply with its commitments under the February 1994 understanding by June 1994 but has failed to meet this deadline while, surprisingly, no action was taken by the United States.277

Brazil has continued to debate improved legislation while continuing to violate GATT.278 In April 1995, the USTR made its annual announcements of what countries would be chosen for concentrated efforts to change their intellectual property activities toward U.S. products.279 Brazil was placed on an intermediary watch list.280 The USTR felt, judging from its failure to take a stringent stance towards Brazil, that the country was making excellent strides towards strengthening its protection of intellectual property rights and no further U.S. action was necessary.281

Concern with Brazil’s intellectual property protection regime is not limited to merely U.S. interests. For example, the MERCOSUR customs union282 is still at an impasse on the question of intellectual property rights.283 Surprisingly, the most ardent supporter of strict intellectual property rights in that context is the country of Brazil.284

---

277. China, Turkey, India, Brazil Faulted For Intellectual Property Inaction, supra note 19.
278. Id. (announcing Brazil has failed to improve its copyright regime within the time limit agreed upon in a February 1994 memo of understanding with the United States). See supra notes 245-264 and accompanying text (discussing Brazil’s violation of GATT).
279. U.S. Warns Japan and Others on Patent Piracy, N.Y. TIMES, Apr. 30, 1995, at § 1, p.15 (reporting that the Clinton Administration would subject Brazil to special reviews “to insure that pressure is maintained on these countries for progress” in the implementation of stronger intellectual property rights).
280. Id.
282. Argentina-Brazil-Paraguay-United States-Uruguay: Agreement Concerning a Council on Trade and Investment, reprinted in, 30 I.L.M. 1034 (1991) (developing international trade and investment among the parties through the creation of a South Common Market (Merocur)).
283. Trademark Piracy Tops MERCOSUR Nations’ Agenda, 12 Int’l Trade Rep. (BNA) 305, Feb. 15, 1995 (stating that a primary source of the dissatisfaction between the MERCOSUR member states stems from trademark violations). Ironically, Brazil is the principal victim of the violations. Id.
284. Id. (stating that many popular Brazilian trademarks have been registered in MERCOSUR member countries by entities other than the rightful owner). Once the Brazilian owner of the trademark enters the other country, it finds it is unable to use its trademark because it has already been registered. Id.
As of the date of this comment's submission for publication, the Brazilian Congress is in the process of reviewing new legislation to broaden and strengthen the 1987 Software Law.\textsuperscript{285} The new proposed legislation would, most notably, result in Brazil's acceptance of a fifty year period of protection for software to comply with GATT/TRIPs standards.

U.S. actions to curtail the illegal reproduction of computer software are not limited to the diplomatic arena.\textsuperscript{286} The Business Software Alliance's Latin American division routinely conducts surprise raids on companies suspected of using pirated versions of computer software in Brazil and throughout Latin America.\textsuperscript{287} These raids are conducted in association with state police.\textsuperscript{288} Jeffrey Steinhardt, corporate counsel for Microsoft, as well as Chair of the BSA's Latin America Committee, states that these raids have increased community awareness of the illegality of computer software piracy.\textsuperscript{289} Even more importantly, these raids alert the Brazilian business community that illegally reproducing computer software is against the law and violations will be strictly enforced.\textsuperscript{290}

V. CONCLUSION

On August 6, 1993, in a stunning decision by the State of São Paulo's lower court, Microsoft was awarded US$10 million in damages stemming from a lawsuit against a local Brazilian computer manufacturer for software piracy.\textsuperscript{291} The Brazilian hardware manufacturer, Prologica, one of the largest in Brazil, was accused of copying Microsoft's DOS into its new computers.\textsuperscript{292} Prologica responded to Microsoft's accusations by claiming that the software included in its computer package was in fact an application that Prologica created independently and that any similarities were due to the limitation of alternative forms of expression.\textsuperscript{293} The Court rejected Prologica's response, since the evidence showed that Prologica had in fact expended no capital on the...

\textsuperscript{285} Steinhardt Interview 9/11/95, supra note 33.

\textsuperscript{286} Steinhardt Interview 9/11/95, supra note 33.

\textsuperscript{287} U.S. Software Companies Hope Raids in Brazil Will Help Increase Legal Sales of Programs, 7 Int'l Trade Rep. (BNA) 697, May 16, 1990.

\textsuperscript{288} Steinhardt Interview 9/11/95, supra note 33.

\textsuperscript{289} Steinhardt Interview 9/11/95, supra note 33. The BSA also initiates litigation in many countries around the world in defense of its members proprietary rights in their creations. \textit{Id.} Recently, in a January 1995 decision by the Court of Appeals of the State of São Paulo, a BSA victory was affirmed. \textit{São Paulo, Brazil, CONTRA LA PIRATERIA,} Mar. 1995, at p.1 (stating that this is the Latin America Committee of the BSA's monthly newsletter). The Court of Appeals decision represented the first civil appellate decision in Brazil regarding computer software. \textit{Id.}

\textsuperscript{290} Steinhardt Interview 9/11/95, supra note 33.

\textsuperscript{291} Fischer, \textit{ supra} note 78, at 11.

\textsuperscript{292} Fischer, \textit{ supra} note 78, at 11.

\textsuperscript{293} Fischer, \textit{ supra} note 78, at 11.
development of its program. This judgment was the largest ever awarded a foreign software manufacturer for piracy by a Brazilian Court. Yet, the piracy problem in Brazil continues to exist outside the reach of the Brazilian judiciary.

In August 1995, Microsoft introduced its new operating system Windows 95. Within days of the official unveiling, illegal copies of the system were being sold in Brazilian computer markets. The only difference between the illegal and legal copies, apart from the product support provided by Microsoft, was the price. A legally manufactured Portuguese version of Windows 95 sells for R$230 while a pirated version, in Portuguese, sells for a mere R$52. In the United States, the English version of the program sells for around US$100.

Brazil is one of the world’s largest computer markets with predictions that its growth may come to equal, if not far surpass, that of many Asian countries. While this expansion in the computer industry requires a similar increase in software application, growth in the corollary software market depends uniquely on strong protection of the intellectual property rights in software. In Brazil, the 1987 Software Law acts to promote these goals by providing criminal penalties as well as fines for any violation of the law. The Brazilian Congress is also examining the reformulation of the 1987 Software Law to bring it into parity with GATT.

Led by newly elected President Fernando Henrique Cardoso, Brazil is experiencing a rebirth in its political, economic and social institutions. President Cardoso’s economic stabilization plan has brought inflation within reasonable limits, stabilized prices and increased international trade. Brazil’s forward momentum will require new technologies, improved processes and more efficient methods to sustain such historical growth. Computer software provides the necessary means to these ends. It then becomes important to create incentives to bring these means to Brazil while reducing, as far as possible, the risks of damaging one’s proprietary rights in the product. Brazil currently is not reducing, as reasonably possible, the risks of marketing computer software within its

294. Fischer, supra note 79, at 11.
295. See supra notes 157-290 and accompanying text (discussing the present Brazilian computer market and the continuing high percentage of computer software illegally reproduced).
296. Lucena, supra note 224. More surprising, three days after Microsoft’s official release, copies were being sold in China for only US$2.50. Id.
297. Lucena, supra note 227.
298. See Norvell & Katz, supra note 1, at 73-76; see Brooke, supra note 2.
299. Brazilian Law No. 7646 of Dec. 18, 1987, supra note 8, Title VII.
300. See supra notes 232-244 and accompanying text (discussing current Brazilian efforts to amend the 1987 Software Law).
301. See supra notes 188-226.
302. See supra notes 19-60 and accompanying text (explaining that Brazil’s historical conceptualization of intellectual property rights, specifically towards computer software, must alter in order to provide the foundation upon which future growth may be built).
It is imperative for Brazil to upgrade the period of protection for software while alone providing more vigorous protection of software copyright. Absent effective protection of software's proprietary rights, the incentive to market one's software within Brazilian borders decreases greatly.

Theodore G. Bryant

303. See supra notes 245-264 and accompanying text (reviewing Brazil's continued violation of its obligations under the TRIPs provisions of the GATT to protect computer software for a term of 50 years per the Berne Convention). Brazil also fails in policing and judicially enforcing computer software piracy laws though recent judicial decisions do indicate a shift from previous inaction. Id.

* To my lovely wife Ana Paula, whose dedication, compassion, and understanding made this comment possible.