How Far is Too Far? The United States Supreme Court Restrains the Extraterritorial Reach of 35 U.S.C. § 271(f) Over Software Exports in Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007)

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I. INTRODUCTION

Total software exports from the U.S. averaged approximately $3 billion per year from 1998 to 2002, making foreign software sales big business. Companies commonly export their software using golden master disks, which foreign purchasers use to generate the number of software copies they need. U.S. companies, however, had been operating under uncertain conditions regarding their potential liability for patent infringement arising from the exportation of software on golden master disks. Generally, liability for patent infringement is limited to activities that occur within the territorial jurisdiction of the U.S., but section 271(f) of the Patent Act is an exception. Section 271(f) makes any exporter liable for patent infringement for "supplying...from the United States...components of a patented invention." For software distributed to foreign buyers using golden master disks, it was not clear, until a recent Supreme Court decision, whether section 271(f) imposed liability when the exported software was used to create an invention protected by a U.S. patent in a foreign country. The issue of patent infringement liability for exported

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2. A golden master disk is a CD-ROM encoded with software. It is to be used as a template to generate copies of the software on additional CD-ROMs for installation on computers. See Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746, 1761 (2007); Eolas Technologies Inc. v. Microsoft Corp., 399 F.3d 1325, 1331 (Fed. Cir. 2005).


software generally arose as follows: (1) a U.S.-based company exported software to a foreign buyer on a golden master disk, (2) the foreign buyer copied the software code onto computer-readable disks using the golden master disk, (3) the foreign buyer used the foreign-made copies to install the software code onto computers for sale outside the U.S., (4) the resulting computer and software combination potentially infringed on a U.S. patent, and (5) the U.S. patent holder brought suit against the U.S.-based company for patent infringement under section 271(f). With over 230,000 software-related U.S. patents, software exporters could potentially be held liable for actions of foreign buyers outside the U.S. In its 2007 decision in *Microsoft Corp. v. AT & T Corp.*, the Supreme Court held that section 271(f) did not impose patent infringement liability on U.S. suppliers that export software from the U.S. on golden master disks.

Section 271(f) is an exception to the presumption against extraterritoriality prevalent in patent law. The presumption provides that liability for patent infringement is limited to activities that occur within the U.S. Congress enacted the section in response to a loophole exposed by *Deepsouth Packing Co. v. Laitram Corp.* involved a U.S.-based exporter that had escaped patent infringement liability by exporting all the parts of a patented mechanical invention in separate boxes for assembly and sale exclusively outside of the U.S. If the exporter had first fully assembled the patented invention within the U.S. before export, the exporter would have been liable for patent infringement. Similarly, U.S. companies that create a patented invention involving software within the U.S. and then export that invention would also be liable for patent infringement.

Courts routinely applied section 271(f) to exported parts of patented mechanical inventions, but did not generally apply the section to exported software that could be used to create a patented invention. This changed in 2005 with *AT & T Corp. v. Microsoft Corp.* in which the Federal Circuit Court of Appeals found a company that exported software on golden master disks liable for patent infringement under section 271(f). That decision exposed software exporters to

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7. Id.
8. See Zaunbrecher, supra note 3, at 33.
10. Id.
unexpected potential liability. However, the decision did not stand long. The Federal Circuit's decision was reversed by the Supreme Court two years later in Microsoft Corp. v. AT & T Corp. The Court based its decision primarily on its interpretation of section 271(f), but it also emphasized that the presumption against extraterritoriality in U.S. patent law encouraged reversal. This decision clarified that section 271(f), in its current form, had limited applicability to software exports and left it to Congress to determine whether to create patent infringement liability for software exported on golden master disks. Although such legislation would provide additional protection for U.S. patent holders, Congress should not enact legislation imposing patent infringement liability because the presumption against extraterritoriality counsels against it. U.S. software exporters could face excessive liability, and U.S. patent holders can pursue protection in the foreign countries where their patented inventions are likely to be sold.

This Note addresses whether Congress should impose patent infringement liability on U.S. companies that export software on golden master disks when the software is used to make and sell a U.S. patented invention in foreign countries. Part II of this Note focuses on the significant role of the presumption against extraterritoriality in statutory interpretation, the history of section 271(f) along with a discussion of the application of the section to software exports by the Federal Circuit, and the Supreme Court's opinion in Microsoft Corp. v. AT & T Corp. Part III discusses why Congress should maintain section 271(f) in its current form and not expand it to impose liability for software exported on golden master disks. Finally, Part IV of this Note concludes that Congress should not respond to Microsoft Corp. v. AT & T Corp. as it did to Deepsouth.

II. BACKGROUND

A. The Role of the Presumption Against Extraterritoriality in Statutory Interpretation

1. The Presumption Against Extraterritoriality Applied to Congressional Legislation

When interpreting Congressional legislation, courts generally apply a presumption against extraterritoriality. The presumption is
that the legislation applies only within the territorial jurisdiction of the U.S.; however, Congress can overcome this presumption by plainly indicating a contrary intent. Courts apply the presumption for a couple of key reasons. First, it is a way to avoid the "international discord" that could result from "unintended clashes between our laws and those of other nations." Second, under the doctrine of comity, it is a recognition of the interests of other nations. The Supreme Court has defined comity in the following manner:

"Comity," in the legal sense, is neither a matter of absolute obligation, on the one hand, nor of mere courtesy and good will, upon the other. But it is the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation, having due regard both to international duty and convenience, and to the rights of its own citizens, or of other persons who are under the protection of its laws.

Courts, therefore, generally apply the presumption against extraterritoriality to avoid an unintended statutory interpretation that could conflict with other nations' laws or disregard the interests of other nations.

2. The Presumption Against Extraterritoriality Applied to U.S. Patent Law

U.S. patent law flows from the U.S. Constitution. The Constitution authorizes Congress to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the

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19. See, e.g., Foley Bros., 336 U.S. at 285; Carnero v. Boston Scientific Corp., 433 F.3d 1, 7 (1st Cir. 2006); Gatlin, 216 F.3d at 211–12; Nieman, 178 F.3d at 1129. Furthermore, policy considerations alone are not enough to overcome the presumption against extraterritoriality. See Subafilms, Ltd. v. MGM-Pathe Commc’n Co., 24 F.3d 1088, 1096 (9th Cir. 1994) ("[T]he ultimate touchstone of extraterritoriality consists of an ascertainment of congressional intent; courts do not rest solely on the consequences of a failure to give a statutory scheme extraterritorial application.").


21. See Subafilms, 24 F.3d at 1088; United States v. Nippon Paper Indus. Co., 109 F.3d 1, 3 (1st Cir. 1997). Comity, however, is a separate rule of construction. It is applicable even if a statute has no extraterritorial reach. See In re Maxwell Commc’n Corp., 93 F.3d 1036, 1047 (2d Cir. 1996).

22. Hilton v. Guyot, 159 U.S. 113, 164 (1895); see also In re Maxwell, 93 F.3d at 1048 ("Comity is a doctrine that takes into account the interests of the United States, the interests of the foreign state, and those mutual interests the family of nations have in just and efficiently functioning rules of international law.").

exclusive Right to their respective . . . Discoveries." The purposes of U.S. patent law include encouraging and rewarding innovation, promoting public disclosure of inventions, and ensuring that ideas in the public domain remain available and free for public use. To achieve these goals, U.S. patent law grants patent holders a statutory monopoly which allows patent holders to commercialize their inventions without competition. The monopoly ends "20 years from the date on which the application for the patent was filed in the United States." A U.S. patent authorizes its holder to not only make, use, and sell the patented invention, but also to exclude others from performing these activities. As part of this authority, patent holders are empowered by the Patent Act to bring infringement actions for activities that intrude upon their rights.

Historically, patent holders' rights and protections have been limited to the geographical boundaries and jurisdictional limitations of the U.S. by case law, statutes, and treaties. Even before Congress enacted section 154(a)(1) of the Patent Act, which codified the principle that U.S. patent law is generally limited to the territorial jurisdiction of the U.S., courts applied the presumption against extraterritoriality to limit the reach of U.S. patent law. Furthermore, major intellectual property treaties the U.S. has signed also reflect the idea of the territoriality of patent law.

24. Id.
27. See William Greubel, Note, A Comedy of Errors: Defining 'Component' in a Global Information Technology Market—Accounting for Innovation by Penalizing the Innovators, 24 J. MARSHALL J. COMPUTER & INFO. L. 507, 511 (2006) ("Equally if not more important, U.S. patent laws provide incentives for patent holders to commercialize the claimed invention, method, assembly, or process.").
31. Id. § 154(a)(1).
32. See Zaunbrecher, supra note 3, at 33.
33. See id. at 37 ("As a general matter, [the treaties] supported the territoriality of patent law by allowing member states to maintain additional standards so long as such standards did not conflict with the provisions of the TRIPS agreement."); see also Agreement on Trade-Related Aspects of Intellectual Property Rights, Agreement Establishing the World Trade Organization, Annex 1C, art. 1.1, Apr. 15, 1994, 33 I.L.M. 1197 [hereinafter TRIPS Agreement] ("Members shall be free to determine the appropriate method of implementing the provisions of this Agreement within their own legal system and practice."); Paris Convention for the Protection of Intellectual Property art. 2, Mar. 20, 1883, 21 U.S.T. 1583 [hereinafter Paris Convention] (recognizing that member nations will develop their own patent systems by requiring that citizens of one signing country enjoy the same patent rights in another signing country as that country's own citizens).
The Supreme Court first applied the presumption against extraterritoriality to U.S. patent law in 1856 in *Brown v. Duchesne*. Before entering U.S. waters, the ship had been outfitted with a U.S. patented invention to help it sail on the ocean. Once the ship was in a U.S. port, the U.S. patent holder sued the ship master for patent infringement because the invention was being used in the U.S. Even though a literal reading of the patent infringement statute supported the patent holder's position, the Court stressed that the resolution of the issue of liability "depend[ed] on the construction of the patent laws." The Court emphasized that U.S. patent laws "do not, and were not intended to, operate beyond the limits of the United States; and as the patentee's right of property and exclusive use is derived from them, they cannot extend beyond the limits to which the law itself is confined." In support of its position, the Court compared Congress' patent power to its treaty-making power, noting that they are distinct powers that Congress usually exercises separately. Treaty-making power, which gives extraterritorial effect to laws, should not be read into the patent power, which generally only applies domestically. The Court said that this distinction was essential to avoid a result that Congress could not have intended. For example, had the ship master been found liable, U.S. patent holders would have been able to hold a foreigner liable even if there was a U.S. treaty absolving foreigners of liability for infringement when they enter the country, severely weakening the treaty power of the U.S. Therefore, the Court held that, despite the fact that part of the ship was patented in the U.S., "the rights of property and exclusive use granted to a patentee does [sic] not extend to a foreign vessel lawfully entering one of

34. 60 U.S. 183 (1856). See generally Katherine E. White, The Recent Expansion of Extraterritoriality in Patent Infringement Cases, 2007 UCLA J.L. & TECH. 2, 11 n.33 ("It is worth noting that at the time of this decision, the boundaries of the United States were not as well defined as they are today.").
36. *Id.*
37. *Id.*
38. *Id.* at 194 (emphasis added).
39. *Id.* at 195.
40. *Id.*
41. *Id.*
42. *Id.* at 197 ("We think these laws ought to be construed in the spirit in which they were made—that is, as founded in justice—and should not be strained by technical constructions to reach cases which Congress evidently could not have contemplated without departing from the principle on which they were legislating, and going far beyond the object they intended to accomplish.").
43. *Id.* at 197.
our ports. The ship master would be liable only if he tried to resell the invention in the U.S.

In 1915, the Supreme Court affirmed the vital role of the presumption against extraterritoriality in interpreting U.S. patent law. In Dowagiac Manufacturing Co. v. Minnesota Moline Plow Co., a U.S. patent holder sought to collect damages from a Canadian reseller of its patented invention. The patented invention was an improvement on a grain drill. The reseller purchased grain drills from an unauthorized supplier in the U.S. and resold them in Canada. The Court held that the reseller was not liable for any of the products sold in Canada because "[t]he right conferred by a patent under our law is confined to the United States and its territories, and infringement of this right cannot be predicated of acts wholly done in a foreign country." Relying on the presumption against extraterritoriality, the Court quickly rejected the proposition that the Canadian reseller was liable for patent infringement.

The presumption against extraterritoriality appeared again in 1972. In Deepsouth Packing Co. v. Laitram Corp., the Supreme Court reaffirmed that U.S. patent law was limited to the territorial jurisdiction of the U.S. Additionally, before this case arose, Congress had codified that U.S. patent law was subject to the presumption against extraterritoriality in section 154(a)(1) of the Patent Act. In Deepsouth, the holder of a U.S. combination patent for a shrimp deveiner sued a U.S.-based exporter for infringement. The exporter made all of the components of the invention in the U.S. and then shipped the components in separate boxes to locations outside the U.S. where they

44. Id. at 198.
45. Id. at 196 ("If it had been manufactured on her deck while she was lying in the port of Boston, or if the captain had sold it there, he would undoubtedly have trespassed upon the rights of the plaintiff, and would have been justly answerable for the... advantage he thereby obtained.").
46. 235 U.S. 641 (1915).
47. Id. at 650.
48. Id.
49. Id. (internal citations omitted) (emphasis added).
50. Id.
53. A combination patent, as defined by the court in Borden, Inc., v. Occidental Petroleum Corp., is:

[One in which none of the parts or components are new, and none are claimed as new; nor is any portion of the combination less than the whole claimed as new or stated to produce any given result. The combination, as arranged in reference to each other, is stated to be the improvement and the thing patented. It is a novel union of old means designed to achieve new ends.

54. 406 U.S. at 519.
were fully assembled and sold. The Court first found that a combination patent can only be infringed once the invention is fully assembled. This invention, however, was fully assembled outside the U.S. The Court further held that it was not infringement "to make or use a patented product outside of the United States," and, thus, the exporter did not infringe the patent. In support of its holding, the Court highlighted that "the wording of [the Patent Act] reveals a Congressional intent" to have patent holders secure protection abroad through foreign patents. Moreover, the Court underscored that it would "require a clear and certain signal from Congress" before there could be infringement of any kind for acts performed outside the U.S.

B. Congress Responds to Deepsouth Packing Co. v. Laitram Corp.

1. Section 271(f)

Congress responded to Deepsouth by enacting section 271(f). According to the legislative history for the section, Congress "specifically intended § 271(f) as a response to" Deepsouth to "close [the] loophole in patent law" exposed by the case. Section 271(f) provides the following:

(1) Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

(2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

55. Id. at 523–24.
56. Id. at 528.
57. Id.
58. Id. at 527.
59. Id. at 532.
60. Id. at 531.
61. Id.
Liability for infringement can arise under either subsection 271(f)(1) or (2). For the purposes of this Note, the differences between the subsections of section 271(f) are immaterial.

2. Patent Infringement Liability Under Section 271(f)

Courts have applied section 271(f) to patents for both mechanical devices and methods. The most straightforward application of the section is to patents for mechanical devices, which was the type of

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65. Id. Although Congress was responding to Deepsouth with section 271(f), Congress extended liability slightly beyond the facts of Deepsouth. See Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746, 1760 n.18 (2007) ("While Deepsouth exported kits containing all the parts of its deveining machines, § 271(f)(1) applies to the supply abroad of 'all or a substantial portion of a patented invention's components. And § 271(f)(2) applies to the export of even a single component if it is 'especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use.').

66. Fisch & Allen, supra note 12, at 567–73. Under the Patent Act, a person who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor." 35 U.S.C. § 101 (2000). The term "process" encompasses any process, art, or method. Id. § 100(b). The term "machine" "includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1853) (emphasis added). "A machine is a concrete thing, consisting of parts, or of certain devices and combination of devices." Burr v. Duryee, 68 U.S. 531, 570 (1863). With process patents, "it is the manner of doing which amounts to invention." With machine patents, "it is the instrumentality by which the thing is done" which amounts to invention. Bauer Bros. Co. v. Bogalusa Paper Co., 96 F.2d 991, 994 (5th Cir. 1938). See Corning, 56 U.S. (15 How.) at 267–68, which provides the following example to aid in distinguishing between these kinds of patents:

A new [method] is usually the result of discovery; a machine, of invention. The arts of tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores, and numerous others, are usually carried on by [methods], as distinguished from machines. One may discover a new and useful improvement in the process of tanning, dyeing, &c., irrespective of any particular form of machinery or mechanical device. And another may invent a labor-saving machine by which this operation or [method] may be performed, and each may be entitled to his patent. As, for instance, A has discovered that by exposing India rubber to a certain degree of heat, in mixture or connection with certain metallic salts, he can produce a valuable product, or manufacture; he is entitled to a patent for his discovery, as a [method] . . . , irrespective of any machine or mechanical device. B, on the contrary, may invent a new furnace or stove, or steam apparatus, by which this process may be carried on with much saving of labor, and expense of fuel; and he will be entitled to a patent for his machine, as an improvement in the art. Yet A could not have a patent for a machine, or B for a [method]; but each would have a patent for the means or method of producing a certain result, or effect, and not for the result or effect produced.

67. See Greubel, supra note 27, at 515. See also T.D. Williamson, Inc. v. Laymon, 723 F. Supp. 587, 590 (N.D. Okla. 1989) (finding that section 271(f) applied to a "caliper pig, used for measuring and reporting on internal geometry of pipelines").
patent at issue in *Deepsouth*. 68 Software, in contrast, is most often protected by method patents. 69 Courts generally did not apply section 271(f) to method patents because they could not easily identify the components of the method. 70 While courts had established that a component did not have to be patented and could even be a staple or commodity, 71 there was little additional guidance to determine what the term "component" included. The definition of "component" has been at the heart of the controversy surrounding the application of section 271(f) to software. 72 In its 2005 decisions in *Eolas Technologies Inc. v. Microsoft Corp.* 73 and *AT & T Corp. v. Microsoft Corp.*, 74 the Federal Circuit "expanded the scope and construction of the term 'component' as it is used in 271(f)" and applied the section to method patents, which include many software patents. 75

C. The Federal Circuit Extends Section 271(f) to Software Exports

Software exported on golden master disks does not easily fit into the structure of section 271(f). For this reason, controversy surrounded the issue of whether U.S. software exporters could be liable under the section. 76 Specifically, the controversy focused on whether

69. *Fisch & Allen, supra* note 12, at 571.
73. 399 F.3d 1325.
74. 414 F.3d 1366.
75. *See Greubel, supra* note 27, at 516.
76. *See, e.g., Brief of the Software & Information Industry Association as Amicus Curiae Supporting Petitioner, Microsoft Corp. v. AT & T Corp.*, 127 S. Ct. 1746 (2007) (No. 05-1056), 2006 WL 3740382 (arguing that the broad interpretation of section 271(f) exposes U.S. companies to excessive liability, harms the U.S. economy, and disrespects other nations and, thus, that the Federal Circuit should be
software could be a component and, if so, whether companies supplied software when they exported a golden master disk. These issues were difficult because of the intangibility of software and the way it is commonly distributed by software companies. Companies export software to foreign buyers in a manner that is significantly different from how physical, tangible goods are exported. Instead of sending the exact number of copies needed, exporters send the foreign buyers the software code embedded on golden master disks. The foreign buyers then use the golden master disks to make the number of copies they need. The potential infringement arises when the foreign buyers use the foreign-made copies to "assemble [a] patented apparatus" outside of the U.S.

1. Eolas Technologies Inc. v. Microsoft Corp.: Software Is a Component Under Section 271(f)

The Federal Circuit first held that software could be a component of a patented invention, within the meaning of section 271(f), in Eolas Technologies Inc. v. Microsoft Corp. Eolas sued Microsoft under section 271(f) for infringement of its patent for a software product. Eolas' patented invention was software that allowed the "user to use a

reversed); Brief for the United States as Amicus Curiae Supporting Petitioner, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2006 WL 3693464 (arguing for reversal of the Federal Circuit because an expansive reading of section 271(f) harms the competitiveness of U.S. companies and negatively affects the harmony among the patent law systems of the United States and other nations); Brief for Intellectual Property Professors as Amici Curiae in Support of Reversal, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2006 WL 3740618 (arguing for reversal of the Federal Circuit because the decision was against the territorial limits of patent law and would disadvantage U.S. software companies); Brief for U.S. Philips Corp. & Philips Electronics North America Corp. as Amici Curiae in Support of Respondent, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2007 WL 197102 (arguing that the Federal Circuit decision should be upheld because to do otherwise would treat software companies differently from other companies); Brief for Wisconsin Alumni Research Foundation, Research Corp. Technologies, Inc., & the Regents of the University of California as Amici Curiae Supporting Respondent, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2007 WL 215264 (arguing that the Federal Circuit decision should be upheld because it properly holds infringers liable for circumventing U.S. patent law).

77. See, e.g., AT & T Corp., 414 F.3d 1366, rev'd, 127 S. Ct. 1746; Eolas Technologies Inc., 399 F.3d 1325.
78. Fisch & Allen, supra note 12, at 574.
79. Id.
80. Id. at 574–75.
81. Id. at 575. This is the precise sequence of events that gave rise to the charge of infringement in both Eolas Technologies Inc., 399 F.3d at 1331, and AT & T Corp., 414 F.3d at 1752–53, rev'd, 127 S. Ct. 1746.
82. 399 F.3d 1325.
83. Id.
web browser in a fully interactive environment." The invention could only be infringed when the software code was executed by a computer. Eolas alleged that Microsoft infringed its patent when it exported its Internet Explorer code with functionality covered by Eolas' patent to foreign manufacturers on golden master disks and the manufacturers used the master disks to install the code on computers for sale outside the U.S. After finding that the Internet Explorer code embedded on the master disks was a component of the patented invention under section 271(f), the Federal Circuit remanded the case for final resolution. The court supported its position that the software was a component by emphasizing that the legislative purpose of the section was to close a loophole in patent law for exporting components of patented inventions, regardless of whether the patented invention or its components were tangible. Finally, the court noted that the Internet Explorer code was more than "a prototype, mold, or detailed set of instructions" because it "in effect drives the 'functional nucleus of the finished computer product.'"

2. AT & T Corp. v. Microsoft Corp.: Software Exporter Liable for Patent Infringement

The Federal Circuit again addressed liability for patent infringement under section 271(f) for exported software in AT & T Corp. v. Microsoft Corp. AT & T held a patent for a computer that digitally encoded and compressed recorded speech. However, when installed on a computer, the Microsoft Windows operating system infringed on AT & T's patent because it permitted the computer to process recorded speech as defined in the patent. AT & T's patent, though, was infringed only when Windows was installed on a computer. Microsoft sold Windows to foreign computer manufacturers for installation on computers for sale exclusively outside of the U.S. Microsoft sent the manufacturers the code on golden master disks or in encrypted elec-

84. Id. at 1328.
85. Id.
86. Id.
87. Id. at 1329.
88. Id. at 1340.
89. Id. at 1339. The Federal Circuit held in Pellegrini v. Analog Devices, Inc., 375 F.3d 1113 (Fed. Cir. 2004), that, under section 271(f), instructions, templates, plans, and designs used to create infringing products in foreign countries were not components.
93. Id.
94. Id.
95. Id. at 1752–53.
tronic transmissions from the U.S. The manufacturers then created copies of the master disk or electronic transmission and used these copies to install Windows on the computers. Subsequently, AT & T sued Microsoft for infringement under section 271(f) for these foreign installations of Windows. The Federal Circuit held that the Windows code was a component under section 271(f). Furthermore, the court held that providing a golden master disk to be reproduced for installation is included within the phrase "supply[d] . . . from the United States," thus making Microsoft liable for infringement. In support of its position that copying software was part of supplying software, the court explained that copying was an ordinary and normal part of supplying software. Following what it believed to be Congressional intent, the Federal Circuit gave the section a broad extraterritorial effect. The Supreme Court granted certiorari to review the Federal Circuit's decision.

D. Microsoft Corp. v. AT & T Corp.: The Supreme Court Reverses the Federal Circuit

On appeal, the Supreme Court considered two issues that arose from the facts in Microsoft Corp. v. AT & T Corp. The first issue was whether the Windows software code, contained either on a golden master disk or in an electronic transmission, was a component under section 271(f). The second issue, which was closely related to the first, was whether Microsoft supplied components of the foreign-made computers, as required by section 271(f).

AT & T maintained that the Windows code sent by Microsoft on golden master disks or via electronic transmissions was a component of its patented invention, even if it was not in a computer-readable form. AT & T further argued that because the Windows code provided by Microsoft was a component used to make the patented invention outside of the U.S., Microsoft supplied components from the U.S. and, therefore, was liable under section 271(f). Microsoft re-
sponded that the Windows code was not a component of the patented invention. It contended that the foreign-made copies of the code that allowed the code to be installed on the foreign computers were the components and that it was not liable because it did not supply the foreign-made copies from the U.S. The Court agreed with Microsoft and reversed the Federal Circuit's decision. The Court found that the foreign-made copies of Windows, not the code itself, were components under section 271(f) and that Microsoft was not liable because it did not "suppl[y] . . . from the United States" these foreign-made copies.

The Supreme Court began its analysis by determining that a copy of Windows in a computer-readable format, not the Windows code itself, was a component. The Court defined software as the "set of instructions, known as code, that directs a computer to perform specified functions or operations." Using this definition, the Court stressed that software can be conceptualized either "in the abstract" or as "a tangible copy." Software in the abstract is "the instructions themselves detached from any medium" that would render it computer readable. Additionally, tangible software is "the instructions encoded on a [computer-readable] medium." The Court found this distinction to be central to the determination of the case and held that only the tangible foreign-made copies of the Windows code, not the software on the master disks or in the electronic transmissions, were components of the patented invention.

In reaching the conclusion that only the tangible copies of Windows were components, the Court focused on the language of section 271(f) and reasoned that liability attaches only when components supplied from the U.S. can be combined to create the patented invention. Because Windows software in the abstract "cannot be inserted into a
"and "cannot be installed or executed on a computer," it cannot be combined to make the patented invention and does not fit section 271(f)'s definition of a "component." Despite AT & T's argument that copying software is an easy step and should not matter, the Court held that the act of copying the Windows software is an essential step because it makes the software a combinable component of the patented invention. Additionally, the Court called into question the Federal Circuit's holding in Eolas that software contained on a golden master disk was a component. The Court, however, was "unable to determine whether the Federal Circuit panels in Eolas regarded as a component software in the abstract, or a copy of software." Furthermore, the Court declined to address the issue of whether software in the abstract could ever be a component, leaving open the possibility that software exporters could still be liable for exporting software on golden master disks under narrow facts.

In further support of its position on the component issue, the Court compared Windows in the abstract to a blueprint "for the construction and combination of the components of a patented device, [which] is not itself a combinable component of that device." The Court cited Pellegrini v. Analog Devices, Inc. in which the Federal Circuit held that instructions cannot be a component under section 271(f). On this point, the Court emphasized that "Congress . . . [could] have included within § 271(f)'s compass . . . not only combinable 'components' of a patented invention, but also 'information, instructions, or tools from which those components readily may be generated.' It did not."

Having resolved the component issue, the Court next addressed whether Microsoft supplied these components from the U.S. It held that Microsoft did not "suppl[y] . . . from the United States" the copies of Windows installed on the computers because the foreign-made cop-

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120. Id.
121. Id. In addressing whether software could be a component under section 271(f), the court first had to determine the meaning of "component." To do this, it applied a general rule of statutory construction that words in a statute will be given their "ordinary or natural meaning." Id. (quoting FDIC v. Meyer, 510 U.S. 471, 476 (1995)). The dictionary definition of "component" is "a constituent part," "element," or "ingredient." Id. at 1755 n.11 (citing WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 466 (Philip B. Grove et al. eds., 1981)).
122. Id. at 1756.
123. Id. at 1754 n.10
124. Id. at 1756 n.13.
125. Id. at 1755.
126. 375 F.3d 1113 (Fed. Cir. 2004).
127. Microsoft Corp., 127 S. Ct. at 1755.
128. Id. at 1756.
ies were "'supplie[d]' from places outside the United States." Additionally, the Court rejected the Federal Circuit's position that "for software 'components' the act of copying is subsumed in the act of 'supplying.'" The Court stressed that copying is separate and apart from supplying, regardless of how easy something is to reproduce.

The Court next noted the importance of the presumption against extraterritoriality. Because of the application of the presumption, there generally is no liability for manufacturing or selling a patented product outside the U.S. Congress, however, expressly made section 271(f) an exception to this presumption, overcoming the presumption in most cases. Despite this exception, the Court underscored that the presumption against extraterritoriality still "remains instructive in determining the extent of the statutory exception." Additionally, the Court considered a related rule of statutory construction that "assume[s] that legislators take account of the legitimate sovereign interests of other nations when they write American laws." One such legitimate sovereign interest noted by the Court is that "foreign law 'may embody different policy judgments about the relative rights of inventors, competitors, and the public in patented inventions.'" This rule of construction combined with the presumption against extraterritoriality encouraged the Court to find that a narrow interpre-

129. Id. (second alteration in original).
130. Id. (citing AT & T Corp. v. Microsoft Corp., 414 F.3d 1366, 1370 (Fed. Cir. 2005) rev'd, 127 S. Ct. 1746 (2007)); see AT & T Corp., 414 F.3d at 1373–74 (Rader, J., dissenting) (noting that the Federal Circuit's holding was technology dependent, in violation of precedent in Eolas requiring that all technology be treated the same under section 271(f)); Eolas Technologies, Inc. v. Microsoft Corp., 399 F.3d 1325, 1339 (Fed. Cir. 2005) ("Patents shall be available and patent rights enjoyable without discrimination as to the place of invention [or] the field of technology . . . ") (quoting TRIPS Agreement, supra note 33, Part II, § 5).

131. The Court explained:

"But the extra step is what renders the software a usable, combinable part of a computer; easy or not, the copy-producing step is essential. Moreover, many tools may be used easily and inexpensively to generate the parts of a device. A machine for making sprockets might be used by a manufacturer to produce tens of thousands of sprockets an hour. That does not make the machine a 'component' of the tens of thousands of devices in which the sprockets are incorporated, at least not under any ordinary understanding of the term 'component'."

Microsoft Corp., 127 S. Ct. at 1756.
132. Id. at 1758.
133. Id. at 1750.
134. Id.
135. Id. at 1758 (emphasis in original).
136. Id.
137. Id. (quoting Brief for the United States as Amicus Curiae Supporting Petitioner, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2006 WL 3693464).
tation of section 271(f) was necessary despite the intent of Congress to give the section extraterritorial reach.\textsuperscript{138}

Finally, the Court emphasized that it was properly left to Congress to take further action. It disagreed with the Federal Circuit's position that section 271(f) should be broadly interpreted to encompass changing technology to close up the new "loophole" evident in this case.\textsuperscript{139} The Court concluded that "focused legislative consideration" is a better way of adjusting U.S. patent law "for the realities of software distribution."\textsuperscript{140} The Court, therefore, left it to Congress to decide whether to change U.S. patent law to create liability in this type of situation.

III. ANALYSIS

In \textit{Microsoft Corp. v. AT & T Corp.}, the Supreme Court correctly overturned a controversial decision by the Federal Circuit.\textsuperscript{141} Although Congress should maintain patent infringement liability for exports under section 271(f), it should not react to this decision as it did to the Court's decision in \textit{Deepsouth}.\textsuperscript{142} Congress should not enact new legislation directed at imposing patent infringement liability for software exported using golden master disks because the law would contravene the principles underlying the presumption against extraterritoriality, expose software exporters to excessive levels of liability, and ignore the options U.S. patent holders have to secure protection of their rights outside the U.S.

A. Congress Should Not Impose Patent Infringement Liability for Software Exported on Golden Master Disks

1. The Presumption Against Extraterritoriality Counsels Against Imposing Patent Infringement Liability

If Congress enacts legislation that would potentially hold U.S. software exporters liable for patent infringement when they export software on golden master disks, it would impose liability for foreign actions and reach too far into the domain of other nations. This result would be contrary to the principles underlying the presumption against extraterritoriality. These underlying principles are respect for other nations, or comity,\textsuperscript{143} and harmony among intellectual prop-

\textsuperscript{138} \textit{Id.}
\textsuperscript{139} \textit{Id.} at 1759 ("The 'loophole,' in our judgment, is properly left for Congress to consider, and to close if it finds such action warranted.").
\textsuperscript{140} \textit{Id.} at 1760 (citing AT & T Corp. v. Microsoft Corp., 414 F.3d 1366, 1370 (Fed. Cir. 2005), \textit{rev'd}, 127 S. Ct. 1746 (2007)).
\textsuperscript{141} \textit{Id.}
\textsuperscript{142} \textit{See} Fisch & Allen, \textit{supra} note 12, at 565.
\textsuperscript{143} \textit{See} discussion \textit{supra} subsection II.A.1. Comity could also be viewed as "refraining from extraterritorial application of laws in an act of altruistic deference
property laws of all nations.\textsuperscript{144} Ultimately, the presumption "serves to protect against unintended clashes between our laws and those of other nations which could result in international discord."\textsuperscript{145} A law directed at software exports would focus on actions that occur entirely outside the U.S.,\textsuperscript{146} which would be different from the focus of section 271(f). As it is currently interpreted by the Supreme Court, section 271(f) is aimed at the U.S.-based activity of supplying.\textsuperscript{147} In \textit{Microsoft Corp. v. AT & T Corp.}, Microsoft also supplied golden master disks containing its Windows software to other companies in the U.S. to copy and install on computers to be sold inside the U.S., which clearly infringed on AT & T's patent.\textsuperscript{148} In that situation, Microsoft was held liable for actions that occurred exclusively inside the U.S. where AT & T's patent was in effect.\textsuperscript{149} However, under a law directed at exported software, U.S. exporters would be liable even though the actions of...

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\textsuperscript{144} See discussion \textit{ supra} subsection II.A.1. Although the Paris Convention and TRIPS Agreement encourage member nations to develop their own intellectual property law systems, they also provide a set of guidelines that member nations must follow to reduce the possibility of conflict among the various intellectual property law systems. \textit{ See TRIPS Agreement, supra note 33; Paris Convention, supra note 33.}


\textsuperscript{146} \textit{See Margulies, supra note 143, at 484 ("The application of § 271(f) to software, an easily transported and duplicated invention, presents interesting questions of territoriality. The United States seemingly allows patent holders to seek damages for actions that completely occur abroad, outside of the reach of traditional applications of domestic law.").}

\textsuperscript{147} \textit{See Wilson, supra note 71, at 452; see also Brief for the United States as Amicus Curiae Supporting Petitioner at 29, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2006 WL 3693464 ("When [section 271(f)] is read correctly to regulate only the supply of components from the United States for assembly abroad, it has no direct extraterritorial application."); Donald S. Chisum, \textit{Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law}, 37 Va. J. Int’l L. 603, 607 (1997) (suggesting that in section 271(f) "Congress did not extend patent rights to acts outside the United States, but rather relied on some domestic act as a hook to reach foreign-based economic activity that harms a patent owner’s interest in deriving full economic advantage from the U.S. market").}

\textsuperscript{148} \textit{See Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746, 1753 & nn.5, 6 (2007) (noting that Microsoft stipulated that it was liable under section 271(a) and section 271(b) for domestic infringement).}

\textsuperscript{149} \textit{See 35 U.S.C. § 271 (2000).}
copying, installing, and selling that ultimately give rise to the infringement would take place entirely in a foreign country.

By enacting a law directed at wholly foreign actions, Congress would reach too far into the affairs of other nations in light of the purposes of the presumption against extraterritoriality to respect the legal systems of other nations and avoid international conflict. The U.S. law would dangerously ignore the interests of the foreign country where the activities occur by conspicuously intruding on the rights of that country to regulate its own intellectual property law system. While U.S. patent laws that are limited to the territorial jurisdiction of the U.S. will affect a foreign country's patent law power to some extent, U.S. laws should not directly regulate activities that are wholly foreign because that would usurp some of the foreign country's power, and possibly lead to discord between the U.S. and the foreign country. Consequently, even though Congress has the power to enact a statute directed at software exports, the policy concerns underlying the presumption against extraterritoriality caution against the passage of such a law.

2. Patent Infringement Liability Would Be Excessive

Furthermore, Congress should not enact legislation directed at software exports because the potential patent infringement liability would be too great for U.S. companies. The excessive liability would

150. See supra subsection II.A.1; see also Brief for the United States at Amicus Curiae Supporting Petitioner at 29, Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007) (No. 05-1056), 2006 WL 3693464 ("Imposing liability for conduct that occurs in foreign countries and is directed toward foreign markets fully implicates the comity concerns underlying the presumption against extraterritoriality.").

151. See Wilson, supra note 71, at 434 (suggesting that a law directed as software exports would "show[] an inappropriate lack of respect for foreign patent laws").

152. See TRIPS Agreement, supra note 33 (providing for a basic common intellectual property law system where member nations define the rest of their system based on their own policies); Paris Convention, supra note 33 (setting basic intellectual property law guidelines for all member nations, but otherwise allowing member nations to define their own intellectual property law systems); see also RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 206 & cmt.b (1987) (providing that a state has "sovereignty over its territory" where sovereignty "implies a state's lawful control over its territory generally to the exclusion of other states, authority to govern in that territory, and authority to apply law there"); Margulies, supra note 143, at 496–97 (noting that because intellectual property is important to domestic economies "jurisdiction sometimes should not exist over issues 'so closely tied to foreign sovereignty interests.'") (quoting Graeme W. Austin, The Role of National Courts: Valuing "Domestic Self-Determination" in International Intellectual Property Jurisprudence, 77 CHI.-KENT L. REV. 1155, 1179 (2002)).

153. See Margulies, supra note 143, at 501 ("[I]f the U.S. government reaches so far to protect domestic industry, it may find other nations respond in kind. U.S. patent holders could find themselves liable in foreign courts for infringing domestic conduct and international negotiations could break down.").

154. See supra subsection II.A.1.
potentially encourage software developers to move production offshore to avoid the added liability and remain competitive in foreign markets. Section 284 of the Patent Act governs the award of damages for patent infringement. It provides that "the court shall award [the patent holder] damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer." Damages are adequate if they are "full compensation for 'any damages' [the patent holder] suffered as a result of the infringement." In addition, damages must be based on the patent holder's actual pecuniary loss as a result of the infringement. Under these general damages rules, the patent infringement liability for software exported using golden master disks could be exorbitant. Unlike in the manufacturing context where the manufacturer's liability for infringement under section 271(f) is ultimately limited by the number of components supplied, the software exporter's liability is potentially boundless because software is easily copied. Thus, this law would "convert[] a single act of supply from the United States into a springboard for liability each time a copy of the software is subsequently made [abroad] and combined with computer hardware [abroad] for sale [abroad]." With damages based on the patent holder's actual monetary losses attributable to infringement, the software exporter's liability would increase every time the foreign company made another copy of the software, installed the software, and sold the resulting computer system.

156. Id.
159. It is worth noting that in Microsoft Corp. v. AT & T Corp. the Supreme Court declined to address whether Microsoft would be liable under section 271(f) if it produced the copies in the U.S. and then sent the copies overseas to be used to install the software. 127 S. Ct. 1746, 1757 n.14 (2007). This leaves open the possibility that software exporters are still liable; however, the exporters' liability would be limited to the number of copies supplied, as in the manufacturing context.
160. See AT & T Corp. v. Microsoft Corp., 414 F.3d 1366, 1372 (Fed. Cir. 2005) (Rader, J., dissenting) ("[S]upplying a single 'component' of a patented invention from the United States gives rise to endless liability in the United States under § 271(f) for products manufactured entirely abroad.").
162. In Eolas Technologies Inc. v. Microsoft Corp., Microsoft's liability for infringement totaled $520 million, of which more than 64% was due to foreign sales. The damages awarded because of section 271(f) were far greater than those awarded for domestic infringement. Petition for Writ of Certiorari at 4, Microsoft Corp. v. Eolas Technologies Inc., 126 S. Ct. 568 (2005) (No. 05-288), 2005 WL 2132316.
If companies could infringe on a U.S. patent when they export software on master disks from the U.S., there would be an incentive to relocate operations from the U.S. to foreign countries to circumvent the potential liability. Software companies face fewer barriers to relocating than manufacturing companies because they depend primarily on human and technology resources that are readily available in many countries. For example, India and other countries have cultivated technology-friendly environments and have workers with the skills software companies require. Manufacturing companies, on the other hand, typically are more limited in where they can locate production facilities because they may need to be near a natural resource or an important supplier. Unlike manufacturing companies, software companies would be less likely to face the increased distribution costs associated with relocation because software can be sent using electronic transmissions. These differences lower the barrier for software companies to relocate outside the U.S., making it more likely that they will do so when confronted with the prospect of excessive liability for patent infringement. When Congress enacted section 271(f), it hoped the section would be instrumental in reducing the movement of manufacturing jobs offshore. If Congress is still con-

163. See AT & T Corp., 414 F.3d at 1372 (Rader, J., dissenting) (noting that Microsoft warned that opening this box would lead to companies exporting jobs from this country to avoid liability). But see id. (Lourie, J.) (rejecting Microsoft's argument that holding it liable under section 271(f) would encourage software development companies to move their operations offshore). See generally James R. Farrand, Territoriality and Incentives Under the Patent Laws: Overreaching Harms U.S. Economic and Technological Interests, 21 BERKELEY TECH. L.J. 1215, 1250 (2006) ("While Pellegrini and a few similar decisions recognized limitations on the application of Section 271(f), the nature of those limitations underscores—indeed strengthens—the perverse incentives Section 271(f) creates against investing in productive facilities in the United States and in favor of moving U.S. jobs and technology to other countries."); Ari Rafilson, Note, Microsoft Liable for Patent Infringement of Software Installed Overseas, 10 COMPUTER L. REV. & TECH. J. 219, 227 (2006) ("Apparently fearing further negative effects on the economy, several corporations proposed the "Coalition Print" calling for a complete repeal of Section 271(f). ").

164. See Microsoft Signs Deals with Wipro, Infosys for Software in India, WALL ST. J., Nov. 16, 2004, at B11, available at 2004 WLNR 10637314 ("Microsoft Corp has signed software partnerships with Indian outsourcing companies Wipro Ltd and Infosys Technologies Ltd, stepping up plans to hire more programmers in India ...."); Microsoft Targets India in $1.7 Billion Expansion, WALL ST. J., Dec. 8, 2005, available at 2005 WLNR 19723224 (reporting that Microsoft unveiled plans to invest $1.7 billion in India and hire 3,000 workers). But see Study Plays Down Export of Computer Jobs, N.Y. TIMES, Feb. 23, 2006, at C11, available at 2006 WLNR 3114742 (reporting on a study showing that outsourcing of software development has been exaggerated, with "the study group [finding] that the most likely prognosis for the United States would be that 2 percent to 3 percent of the jobs in information technology would go offshore annually over the next decade or so").

165. See Wilson, supra note 71, at 453.
cerned with reducing the loss of jobs to foreign countries, the new legislation aimed at software exports would be contrary to this objective, especially because U.S. software companies sell a large amount of software outside of the U.S. 166

U.S. software companies would also likely consider relocating so they could avoid the strategic disadvantage created by the potential excessive liability. While U.S.-based companies competing in foreign markets with foreign-based competitors would be subject to this additional liability for actions outside the U.S., their foreign competitors would not. This would clearly put the U.S. companies at a disadvantage in the foreign market. 167 The patent infringement damages rules make it very likely that software companies would face potentially unlimited liability under legislation aimed at software exported on golden master disks. The excessive liability combined with reduced competitiveness in foreign markets would likely prompt U.S.-based software companies to consider moving their production operations outside of the U.S.


Although it may seem unfair to U.S. patent holders if Congress did not respond to the Supreme Court's decision in Microsoft Corp. v. AT & T Corp., Congress would be making the correct decision. In most cases, U.S. patent law should provide patent holders with the tools necessary to enforce their rights, increasing the incentive to invent; however, Congress should not provide for liability where the benefits of the law would be greatly outweighed by its detriments. 168 The neg-

166. See H. COMM. ON THE JUDICIARY, 109TH CONG., COMMITTEE PRINT REGARDING PATENT QUALITY IMPROVEMENT 144 (Comm. Print 2005), available at http://judiciary.house.gov/media/pdfs/printers/109th/20709.pdf (statement of Nathan P. Myhrvold, Chief Executive Officer, Intellectual Ventures) (telling the subcommittee that “[m]ost software companies have the majority of their revenue come from outside the US. . . . ”).

167. See AT & T Corp. v. Microsoft Corp., 414 F.3d 1366, 1376 (Fed. Cir. 2005) (Rader, J., dissenting) (finding that § 271(f), as interpreted by the Federal Circuit, not only “protect[s] foreign markets from domestic competitors,” but also protect[s] foreign markets from foreign competitors); see generally Farrand, supra note 163, at 1266 (discussing the “paradox of significant added risks without any significant protection [that] results from Section 271(f)'s applicability only against U.S. producers” because it “leaves all actual and potential foreign producers free to compete with the patent holder in foreign markets” but “does not, however, reduce the monetary or injunctive burdens Section 271(f) can impose on companies that do produce components in the U.S. and export their products to other countries”).

168. The prevailing justification of patent law is that a patent is a “discretionary act of the sovereign, acting on behalf of the public.” 1 R. CARL MOY, MOY'S WALKER ON PATENTS § 1:26 (4th ed. 2006). Under this view, “[w]here it seems that the public would suffer net losses . . . the patent is denied.” Id. The “grant of patent rights is a discretionary act” by the sovereign that “exercises this discretion according to
ative effects include the possible encroachment on rights of other nations, which could affect international relations, and the potential excessive liability imposed on software exporters, which could persuade software companies to move operations outside of the U.S. On the other hand, such a law would likely increase the incentive to invent because it would provide an additional layer of protection for U.S. patents.

U.S. patent holders, however, can generally secure protection under foreign patent systems. This is an approach endorsed by international intellectual property treaties signed by the U.S. that allow U.S. citizens to seek protection through foreign patent systems. Although it is more expensive to apply for and protect pat-

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169. See discussion supra subsection III.A.1.
170. See discussion supra subsection III.A.2.
171. See discussion supra note 165.
172. See Wilson, supra note 71, at 454 (“The Federal Circuit’s decision in AT & T v. Microsoft . . . greatly enhances the value of American software patents by extending liability of U.S. software manufacturers to include activities conducted in foreign countries.”).
174. See TRIPS Agreement, supra note 33, at 1197 (“Desiring to reduce distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade[,]” the member nations agreed to uniform recognition of intellectual property rights:); Paris Convention, supra note 33 (recognizing that citizens of signing countries shall enjoy the same patent rights in another signing country as that country’s own citizens). The Supreme Court also encourages the use of foreign protection where domestic protection is not available. See Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 531 (1972) (“To the degree that the inventor needs protection in markets other than those of this country, the wording of 35 U.S.C. §§ 154 and 271 reveals a congressional intent to have him seek it abroad through patents secured in countries where his goods are being used.”); Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746, 1759 (2007) (“In short, foreign law alone, not United States law, currently governs the manufacture and sale of components of patented inventions in foreign countries. If AT & T desires to prevent copying in foreign countries, its remedy today lies in obtaining and enforcing foreign patents.”).
175. See TRIPS Agreement, supra note 33; Paris Convention, supra note 33. In addition to filing in the country in which patent protection is desired, patent applicants who are citizens of nations that are signatories of the Paris Convention can
ents in multiple countries. U.S. patent holders can choose to target key markets where infringement is likely to occur and streamline the process by filing an international patent application under the Patent Cooperative Treaty. Furthermore, U.S. patent holders would benefit from securing foreign protection because it would likely be more expansive than the protection provided by a statute imposing liability solely on U.S. software exporters. Foreign protection would give the patent holder rights against foreign infringers with no connection to the U.S. It would also allow U.S. patent holders to secure priority in the foreign country, preventing foreign competitors from seeking such protection and effectively shutting the U.S. patent holder out of competing in that market. On balance, Congress should not implement the law because the potentially excessive liability imposed on exporters and incentive for software companies to relocate outside the U.S. would strongly outweigh the potential benefits of providing limited additional protection to U.S. patent holders for activities that occur outside of the U.S.

B. Section 271(f) Should Be Maintained

Even though the Supreme Court has limited the reach of section 271(f), the section should remain in effect. The reach of the sec-

176. Although there are strong policy concerns that weigh against enacting legislation aimed at software exports, the “individual patent holder” would likely prefer to have a right granted under U.S. patent law because of “practical consideration[s].” Margulies, supra note 143, at 508. The practical considerations of relying on foreign countries to protect patent rights include the expense of litigating in a foreign country, the strength of the foreign patent system in enforcing the patent holder’s rights, and the bias the foreign country may have against foreign patent holders. Margulies, supra, note 143, at 507–08.

177. See Farrand, supra note 163, at 1264 (“Applying for patents in multiple countries has been streamlined by the Patent Cooperation Treaty (“PCT”), sponsored by the World Intellectual Property Organization (“WIPO”), which boasts the United States and 132 other countries as parties.”); see also sources cited supra note 174.

178. See sources cited supra note 173.

179. See Microsoft Corp. v. AT & T Corp., 127 S. Ct. 1746 (2007).

tion is now properly restricted to situations where the parts supplied from the U.S. are directly used to assemble the patented invention, as in *Deepsouth*.\(^{181}\) When limited to these situations, the section does not have an unwarranted extraterritorial reach because it is imposing liability for actions that occur in the U.S., not in foreign countries.\(^{182}\) The U.S., as sovereign, is the proper governmental body to control actions in the U.S., but it is not the proper body to address actions that take place in other countries.\(^{183}\) Additionally, section 271(f), as it is now interpreted, does not impose excessive liability on U.S. exporters in an overzealous effort to protect the rights of U.S. patent holders. The liability is not disproportionate because the exporter's liability is limited by the number of components the exporter supplies from the U.S. and cannot be increased beyond this limit by the independent actions of the exporter's foreign counterparts.\(^{184}\) Consequently, section 271(f) should be maintained because it protects the rights of U.S. patent holders without overreaching.

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\(^{181}\) See, e.g., Moore U.S.A., Inc. v. Standard Register, 144 F. Supp. 2d 188, 195 (W.D.N.Y. 2001) (finding defendant infringed under section 271(f) on plaintiff's patent for a type of two-way C-fold mailer "when they brought the necessary paper, glue, and blueprints with them from the United States"); W.R. Grace & Co. v. Intercat, Inc., 60 F. Supp. 2d 316, 320 (D. Del. 1999) (finding that section 271(f) applies to any patented invention, including chemical composition patents, and, therefore, that the defendant was liable for international sales of its product that was to be combined with the purchaser's product to create the patented chemical composition); T.D. Williamson, Inc. v. Laymon, 723 F. Supp. 587, 593 (N.D. Okla. 1989) (finding the defendant liable for patent infringement under section 271(f) for shipping "all components of [the defendant's] infringing pig, except the sensory fingers, from Tulsa to Venezuela" where they were to be combined with the sensory fingers "for a caliper pig survey of a pipeline").

\(^{182}\) See Wilson, supra note 71, at 452 ("[T]he legislative history supports the proposition that § 271(f) targets only activities within the United States and evidences no congressional intent toward extraterritorial effect. . . . [D]omestic creation of components with the intention that they be assembled abroad infringes the patent. The domestic actions, not the foreign actions, are the focus of the statute, and the domestic actions trigger liability. This view of congressional purpose comports well with the plain meaning of 'supplies in or from the United States.'").

\(^{183}\) See Restatement (Third) of Foreign Relations Law § 206 (1987) ("Under international law, a state has . . . sovereignty over its territory and general authority over its nationals . . . .").

\(^{184}\) The determination of damages under the "lost profits" approach depends on how many of the patented inventions, containing the "components" exported from the U.S., were sold overseas. Accordingly, the amount of "lost profits" is closely tied to the number of components exported. See W.R. Grace, 60 F. Supp. 2d at 322–26.
IV. CONCLUSION

As it did in 1972 in *Deepsouth*, the Supreme Court, in *Microsoft Corp. v. AT & T Corp.*, limited the applicability of the U.S. patent law to the territorial jurisdiction of the U.S. because Congress had not clearly provided otherwise. In *Deepsouth*, a U.S. exporter successfully circumvented U.S. patent laws by shipping all the components of a patent invention outside of the U.S. in separate boxes for assembly and sale in foreign countries. To prevent similar future avoidance of patent infringement liability, Congress enacted section 271(f), which provided that U.S. exporters would be liable for supplying components of a patented invention from the U.S. Companies commonly export software from the U.S. using golden master disks that contain the software code. The foreign buyers then use the master disks to create copies of the software that can be used to install the software on computers. The golden master disks are generally only used to transfer copies of the software onto other computer-readable media and not to install the software on computers. In 2006, the Federal Circuit found Microsoft liable for patent infringement under section 271(f) in *AT & T Corp. v. Microsoft Corp.* The court held that golden master disks containing Windows code exported by Microsoft from the U.S. were components of a speech processor patented by AT & T and that Microsoft had supplied components of a patented invention from the U.S. The Supreme Court granted certiorari to review the decision. The Court disagreed with the Federal Circuit that the software supplied on the golden master disks was a component within the meaning of section 271(f). It found that only the foreign-made copies were components. Because Microsoft had not supplied the foreign-made copies from the U.S., it was not liable for patent infringement under section 271(f). The Court emphasized that the decision of whether to create patent infringement liability for software exported using golden master disks was properly left to Congress.

Congress, through, should not respond to *Microsoft Corp. v. AT & T Corp.* with new legislation that imposes liability. Legislation that creates patent infringement liability for software exported using golden master disks would be more harmful than beneficial. Although such legislation would offer an additional layer of protection for U.S. patent holders, it would overreach into the domain of other nations, excessively penalize exporters, and ignore the options currently available to U.S. patent holders to obtain protection in foreign jurisdictions. As a result of *Microsoft Corp. v. AT & T Corp.*, section 271(f) is now properly focused on actions in the U.S. and does not mandate unreasonable liability for exported software. Congress is the final authority on the extraterritorial reach of U.S. patent law, but it should not overreach by enacting legislation aimed at software exported on golden master disks.