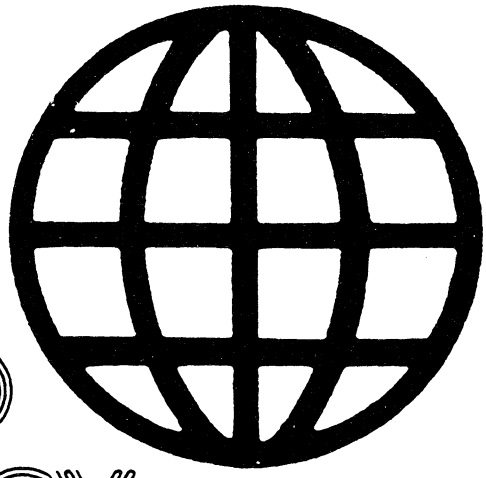
September 1998



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PREFACE

The *Industry, Trade, and Technology Review* (*ITTR*) is a quarterly staff publication of the Office of Industries, U.S. International Trade Commission. The opinions and conclusions it contains are those of the authors and do not necessarily reflect the views of the Commission or of any individual Commissioner. The report is intended to provide analysis of important issues and insights into the global position of U.S. industries, the technological competitiveness of the United States, and implications of trade and policy developments.

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Listing of Published Articles

(September 1995 - September 1998)

September 1995

Structural changes and competitive strategies of the U.S. footwear industry in the 1990s
U.S./EU toy safety standards and the implications for APEC harmonization
Comparison of production-sharing operations in the Caribbean Basin with those in Mexico and in selected East Asian countries
Free-trade zones: Global overview and future prospects

December 1995

Financial services: An overview of the World Trade Organization's negotiations
Sol-gel: Industry seeks to commercialize energy-saving technology for existing and emerging markets
China's evolving grain trade opens new marketing opportunities for U.S. exporters
NAFTA update: Early signs confirm benefits

April 1996

Approaching the next frontier for trade in services: Liberalization of international investment
The impact of Cuba's new foreign investment law
The development of information technology in the Arab world

July 1996

Computer services: Examination of commitments scheduled under the General Agreement on Trade in Services
The global positioning system advances toward universal acceptance
Reformulated gasoline program achieves smooth transition

October 1996

World textile and apparel trade: A new era
World shipbuilding and the status of the OECD Agreement to eliminate subsidies
Thin-slab casting/flat-rolling: New technology to benefit U.S. steel industry

January 1997

Basic telecommunication service negotiations in the World Trade Organization: Impetus, offers, and prospects
U.S. film industry: How mergers and acquisitions are reshaping distribution patterns worldwide
Global competitiveness and organized labor: The case of Caterpillar Inc. and the United Auto Workers Union
Evolution of the U.S.-Japanese semiconductor trade regime

Listing of Published Articles--*Continued*

April 1997

Liberalization of the Mexican telecommunication sector
Use of magnesium castings in automobiles rises, but challenges remain
U.S. trade in intangible intellectual property: Royalties and licensing fees

July 1997

Mobile satellite services
India's steel industry emerging as a competitive global player
Textiles and apparel: India's integration into the world economy and opportunities for U.S. firms

October 1997

The Uruguay Round elimination of duties on pharmaceuticals: Developments in the 2 years since implementation
Alternative materials in the U.S. automotive industry promote development of joining and bonding technology
Electronic trade transforms delivery of audiovisual services

January 1998

Free trade in information technology goods
Factors affecting the commercialization of new manufacturing processes for materials
Thermoplastic elastomers in the auto industry: Increasing use and the potential implications

March 1998

Textiles and apparel: New U.S. trade program likely to spur imports from Israel and Jordan
The assembly industry in Hungary: Favorable business climate creates new opportunities for U.S. industries
Indian market reforms attract U.S. investment and trade in capital goods and equipment

June 1998

China's evolving automotive industry and market
Canadian involvement in Mexico's Maquiladora industry

September 1998

Internet advertising
Progress in recognizing and regulating global professional service providers
Deregulation fosters globalization of the electric power industry

CONTENTS

CONTENTS—*Continued*

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INTERNET ADVERTISING

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Advertisements first appeared on the Internet in 1994. Since that time, revenues from Internet advertising have increased rapidly, reaching between $597 million and $940 million in 1997. Firms that advertise on the Internet face unique opportunities and concerns resulting from the global reach, technological capabilities, and recent advent of this medium. In addition, the concentration of Internet use in the United States and the early entry of U.S. firms into the Internet advertising market suggest a high level of U.S. competitiveness in this sector. This article defines Internet advertising; presents issues, opportunities, and problems that currently affect market conditions for online advertising; discusses U.S. and foreign participation and competitiveness in this market; and briefly assesses the future prospects of Internet advertising.

The Internet became an advertising medium on October 27, 1994, when the first Internet advertisements[1] appeared on the HotWired Web Site, a content site affiliated with *Wired* magazine. Since that date, the Internet advertising market has grown significantly in volume and complexity.[2]

Several traditional ad agencies have become creators of Internet advertisements by establishing or acquiring entities capable of producing interactive advertisements. Traditional agencies and client firms also have employed the services of more recently established, independent firms that specialize in Internet advertising. Much like traditional advertising agencies, these companies plan, create, and place electronic advertisements on behalf of their clients.[3] In addition, some firms create their own Internet advertisements, using in-house talent.[4]

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[1] For the purpose of this report, an Internet advertisement is defined as any graphic, text message, or sponsorship placed on a Internet site, server, or search engine for the purpose of promoting a product, service, or another Internet site. Though several publications consider them to be a form of Internet advertising, Internet sites are primarily content providers and will be considered as such within the scope of this article. However, because the methods used by various research firms to calculate ad spending revenues are not completely clear, the statistics quoted within this article may or may not include revenues earned through Internet site development.

[2] Debra Aho Williamson, "Web Ads Mark 2nd Birthday With Decisive Issues Ahead," *Advertising Age*, Oct. 21, 1996, p. 1, 43.

[3] Mary Meeker, *The Internet Advertising Report* (Morgan Stanley Dean Witter, Dec. 1996), p. 10-1 - 10-7, found at Internet address http://www.ms.com, retrieved Jan. 1998.

[4] Debra Aho Williamson, "When It Comes to Interactive Work, Agencies Lose Out," *Advertising Age*, Mar. 10, 1997, found at Internet address http://www.adage.com, retrieved Mar. 31, 1998.

Once produced, advertisements often are placed through Internet advertising networks.[5] Such networks typically aggregate available ad space on client sites and sell this space in packages, thus allowing advertising agencies or other firms to purchase advertising space from several Internet sites in one transaction.[6] Networks target audiences[7] through the use of "cookies," which are bits of electronic information saved onto a computer's hard drive by an Internet server. By labeling an Internet user's computer in this manner, it is possible to formulate user profiles by keeping a record of the Internet activities and preferences of particular Internet users.[8]

Advertisements can be placed on the Internet in a number of different forms. Five common forms are ad banners, interstitials, sponsorships, key words, and E-mail messages. Ad banners are the most common type, accounting for approximately 55 percent of ad spending in the first quarter of 1998, according to one source.[9] Frequently compared to billboards, ad banners are images often placed in a rectangular box across the top of an Internet page.[10] By clicking on an ad banner, an Internet user can access the advertiser's Internet site.[11] Each time a particular Internet page is accessed, management software rotates an advertisement into its designated ad banner space. Thus, frequent users of an Internet page may see a number of different ads.[12] A second form of Internet advertising is the interstitial,[13] which is a window that appears between Internet pages, as an Internet user proceeds from one page to another.[14] Interstitials are expected to have wide use in the near future.[15] Sponsorships, on the other hand, are arrangements in which content sites will display the name of a sponsor on their Internet page for a fee.[16]

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[5] Meeker, p.10-1.

[6] Laura Rich, "Network Formulas," *Mediaweek*, May 26, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 23, 1998.

[7] Ibid.

[8] Zina Moukheiber, "DoubleClick Is Watching You," *Forbes*, Nov. 4, 1996, found at Internet address http://www.umi.com/proquest, retrieved Mar. 5, 1998.

[9] According to a survey conducted on behalf of the Internet Advertising Bureau, ad banners, sponsorships, and interstitials respectively represented 55 percent, 40 percent, and 4 percent of total Internet advertising in the first quarter of 1998. Internet Advertising Bureau (IAB), "Internet Advertising Bureau (IAB) Announces First Quarter Advertising Revenue Reporting Program Results," June 17, 1998, found at Internet address http://www.iab.net/, retrieved July 8, 1998.

[10] Meeker, *The Internet Advertising Report*, p. 6-2.

[11] This process is known as "click-through." Bill Harvey, "The Expanded ARF Model: Bridge to the Accountable Advertising Future," *Journal of Advertising Research*, Mar./Apr. 1997, found at Internet address http://www.umi.com/proquest, retrieved Feb. 26, 1998.

[12] Meeker, *The Internet Advertising Report*, p. 6-2 - 6-3.

[13] Like interstitials, pop-up windows display advertisements as a web page is loading. However, these windows are found on top of, not between, Internet page content. Brian Hunt, "Creative Strategies: Positioning," *Advertising Age*, Spring 1998, p. 28A.

[14] Dzintars Dzilna, "Web Ad: Be Creative But Careful," *Folio: The Magazine for Magazine Management*, Dec. 1, 1997, found at Internet address http//www.umi.com/proquest, retrieved Feb. 11, 1998.

[15] Hadley Sharples, "New Web Wrinkle: The New 'Interstitial' Ad," *Graphic Arts Monthly*, Jan. 1998, found at Internet address http://www.umi.com/proquest, retrieved Feb. 23, 1998.

[16] Dzilna, "Web Ad: Be Creative But Careful."

Keywords are another important advertising tool. Advertisers purchase keywords from search engines that will, in turn, display the company's ad each time a user searches for a particular word. This word is often associated with the product being advertised.[17] Direct E-mail advertisements are an inexpensive and controversial form of Internet advertising. Though some advertisers get permission from Internet users before sending E-mail advertisements,[18] "spam"--defined as unsolicited advertisements often delivered to a large number of E-mail addresses at once--is also common. Because E-mail is inexpensive and can be targeted to a specific group of Internet users, "spamming" will likely continue although such messages are often considered annoying or intrusive.[19] Though not exhaustive, these examples illustrate many of the different options available to Internet advertisers.

Internet Advertising Revenues

Internet advertising revenues have grown rapidly, although the reported value and rate of this growth are disputed. One study, published in December 1996, estimated future Internet ad revenue growth using three different spending-per-user ratios. It indicated that global revenues may rise from $55 million in 1995, to between $1.4 billion and $7.7 billion in the year 2000 (figure 1).[20] More recent sources provide widely divergent figures regarding the recent value of Internet advertising revenues, with estimated Internet ad revenues ranging between $597 million and $940 million in 1997.[21] Yet, revenues for Internet ads remain small in comparison to revenues for traditional media. One study estimated that in 1996, ad revenues for newspaper, broadcast television, and magazine media in the United States reached $38 billion, $35 billion, and $16 billion, respectively. It is estimated that Internet ad revenues totaled less than $300 million in that same year (figure 2).[22]

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[17] Meeker, *The Internet Advertising Report*, p. 6-6.

[18] Ibid., p. 6-10.

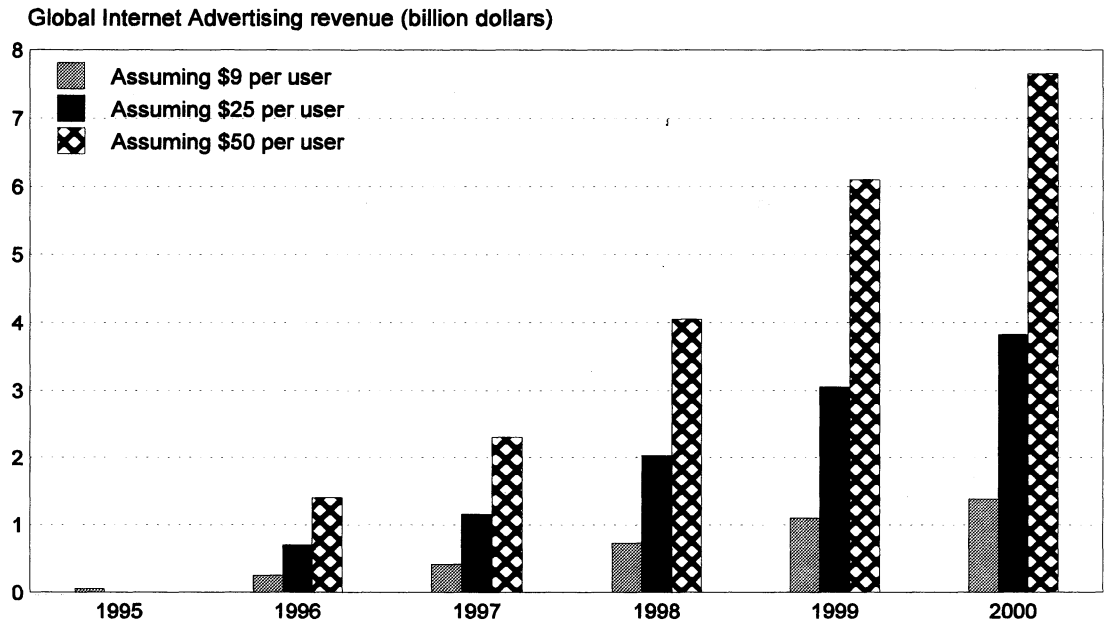
[19] Michael L. Garee and Thomas R. Schori, "Is 'Spamming' an Invasion of Privacy or High-tech 'Direct Mail'?," *Marketing News*, Nov. 10, 1997, found at Internet address http://www.umi.com/proquest, retrieved Feb. 11, 1998.

[20] Meeker, *The Internet Advertising Report*, p. 2-4.

[21] Cowles/Simba, press release, "1997 Web Ad Market Reaches $597.1 Million, Up 152.6% Over $236.4 Million in 1996," Jan. 28, 1998, found at Internet address http://www.simbanet.com, retrieved Feb. 25, 1998; Tim Clark, "Online Ad Spending To Skyrocket," *CNET NEWS.COM*, Aug. 14, 1997, found at Internet address http://www.news.com, retrieved Apr. 1, 1997; and IAB, press release, "Internet Advertising Sees Breakthrough Year in 1997," Apr. 6, 1998, found at Internet address http://www.iab.net, retrieved May 4, 1998.

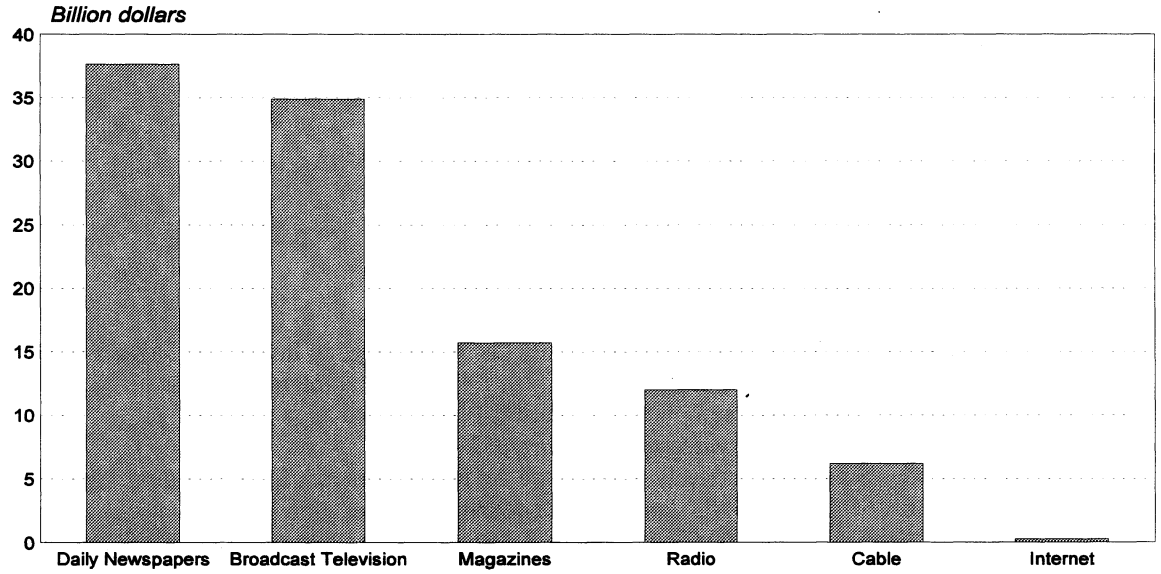
[22] Meeker, *The Internet Advertising Report*, p. iii.

Figure 1
Advertising revenue estimates, 1995-2000[1]



[1] Data for 1996-2000 are Morgan Stanley Dean Witter Research estimates.
Source: Morgan Stanley Dean Witter, *The Internet Advertising Report*.

Figure 2
U.S. Advertising revenue for various media, 1996[1]



Source: Veronis, Suhler Associates, Paul Kagan Associates, Jupiter Communications; as found in MorganStanley Dean Witter, *The Internet Advertising Report.*

In 1996, more than 25 percent of total Internet ad spending was accounted for by the top 10 Internet advertisers.[23] Leading Internet advertisers in terms of spending include Microsoft, AT&T, Excite, IBM, and Netscape (table 1). Leading Internet publishers[24] in terms of advertising revenue include Netscape, Yahoo!, Infoseek, Lycos, and Excite (table 2).[25]

Table 1
Top Internet advertisers, 1996

Rank	Advertiser	Spending
		(*Million dollars*)
1	Microsoft	$13.0
2	AT&T	7.3
3	Excite	6.9
4	IBM	5.9
5	Netscape	5.7
6	Infoseek	5.1
7	NYNEX	4.0
8	Yahoo!	3.9
9	Lycos	3.9
10	CNET	2.7

Source: Jupiter Communications, as found in "Microsoft Is Top Web Spender," *Advertising Age*, Mar. 12, 1997, found at Internet address http://www.adage.com, retrieved Mar. 31, 1998.

Table 2
Top Internet publishers, 1996

Rank	Publisher	Revenue
		(*Million dollars*)
1	Netscape	$27.7
2	Yahoo!	20.6
3	Infoseek	18.1
4	Lycos	12.8
5	Excite	12.2
6	CNET	11.4
7	ZD Net	10.2
8	WebCrawler	7.3
9	ESPNET Sports Zone	6.5
10	Pathfinder	5.8

Source: Jupiter Communications, as found in "Microsoft Is Top Web Spender," *Advertising Age*, Mar. 12, 1997, found at Internet address http://www.adage.com, retrieved Mar. 31, 1998.

[23] Jupiter Communications, press release, "1996 Total Online Ad Revenue $301 Million, According to Jupiter's *AdSpend*," Mar. 12, 1997, found at Internet address http://www.jup.com, retrieved Apr. 1, 1998.

[24] A Internet publisher is any entity providing content on the Internet in the form of a Internet site, server, search engine, etc. It is publishers who solicit–either themselves or through an ad network–advertising space on their Internet pages.

[25] "Microsoft Is Top Web Spender," *Advertising Age*, Mar. 12, 1997, found at Internet address http://www.adage.com, retrieved Mar. 31, 1998.

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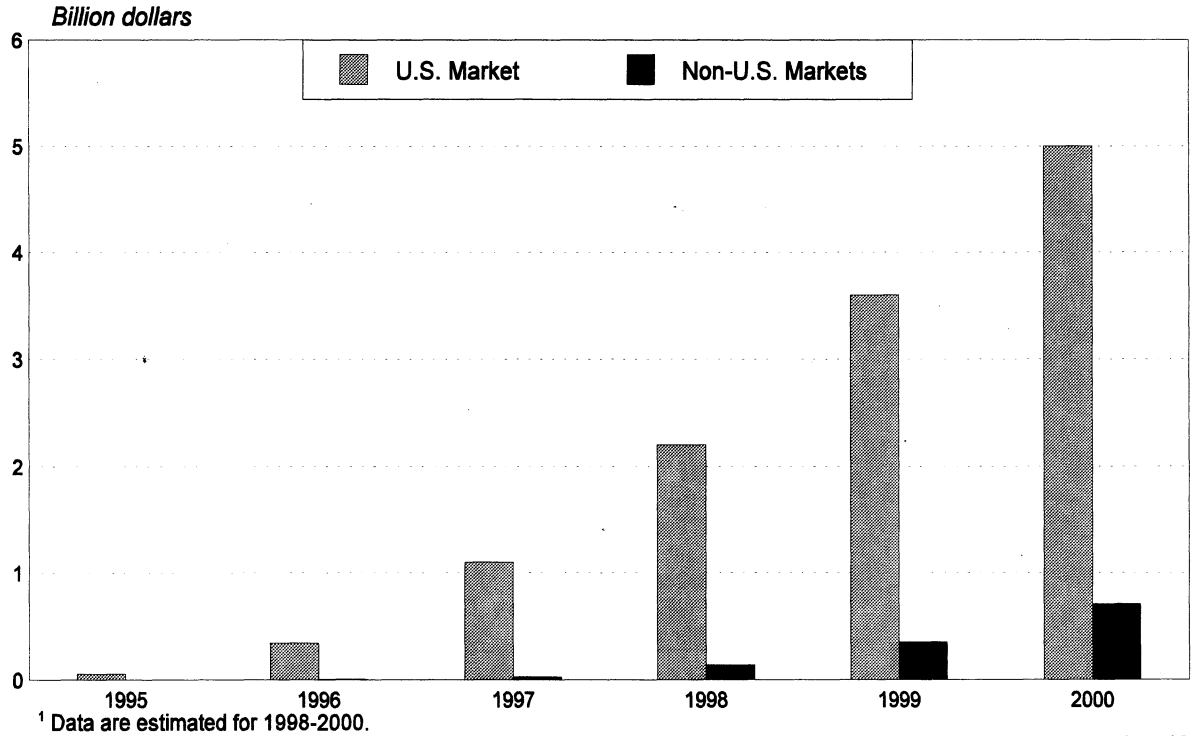
Compared with the United States, Internet ad revenue in foreign markets is relatively low. According to one source, non-U.S. Internet advertising in 1996 approximated $6.1 million, representing only 1.5 percent of global Internet ad revenues. Ad revenues in Europe and the Asia/Pacific region reportedly stood at $3.5 million and $2.6 million, respectively. Japan is considered the largest individual non-U.S. market for Internet advertising, accounting for revenues estimated at $1.8 million. The next largest markets–the United Kingdom, Germany, and the Netherlands–each accounted for approximately $1 million in revenues.[26] Likewise, projections for the year 2000 suggest that U.S. and non-U.S. Internet advertising revenues could reach $5 billion and $704 million, respectively (figure 3).[27] Although these data are not directly comparable to estimates presented earlier, they do serve to indicate the degree to which the U.S. Internet advertising market surpasses foreign markets.

Figure 3
Internet advertising revenues inside and outside the United States, 1995-2000[1]



[1] Data are estimated for 1998-2000.
Source: "The Buck Starts Here," *Brandweek,* May 10, 1997, found at Internet address http://www.umi.com/proquest, retrieved May 29 1998.

[26] James Kennedy, "Publishers Question Non-US Ad Revenues," *Internet Advertising Report,* Feb. 12, 1997, found at Internet address http://search.internet.com, retrieved May 5, 1998. It is not clear whether Canadian Internet advertising revenues have been included as part of "U.S." or "non-U.S." revenues within the context of these statistics.

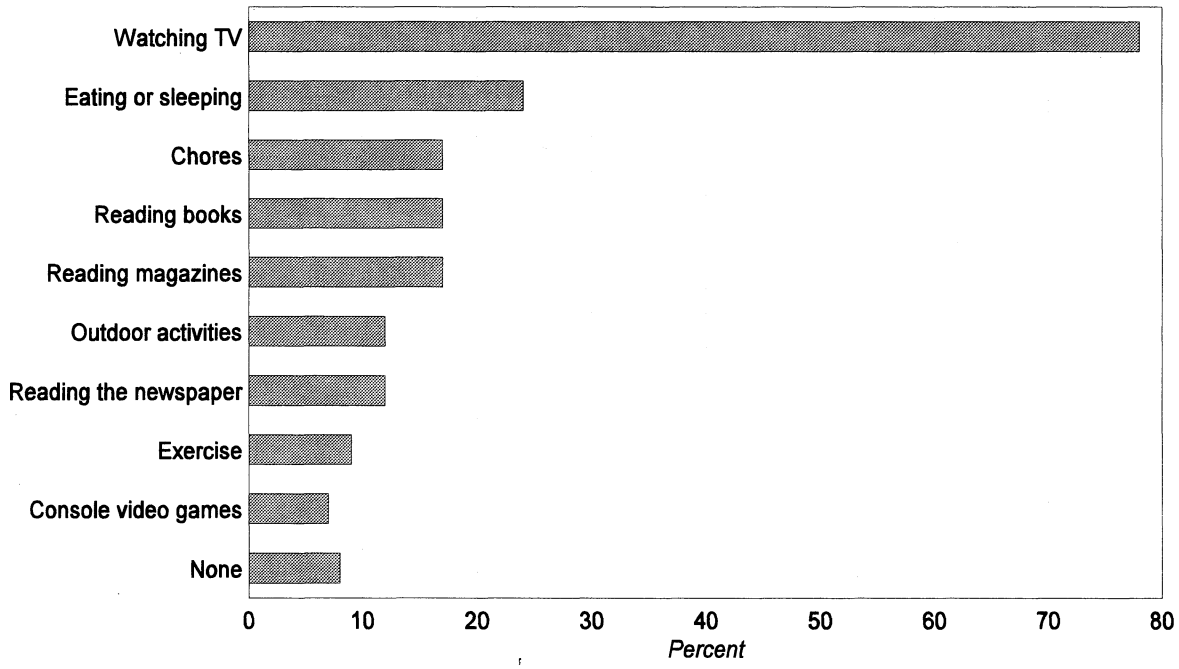
[27] "The Buck Starts Here," *Brandweek,* Mar. 10, 1997, found at Internet address http://www.umi.com/proquest, retrieved May 29, 1998. It is not clear whether Canadian Internet advertising revenues have been included as part of "U.S." or "non-U.S." revenues within the context of these statistics.

Advantages and Opportunities

Growth of Internet Audience

The rapid growth of the Internet provides Internet advertisers with the opportunity to reach a continuously expanding base of consumers. Internet use also seems to have drawn audiences away from traditional media. For example, one study reported that 78 percent of its survey respondents use the Internet during time that would otherwise be spent watching television (figure 4).[28] This shift could increase the relative value of the Internet as an advertising medium. In addition, the unique character of this medium presents Internet advertisers with advantages that traditional media cannot offer. These advantages are a result of several different factors. Most fundamentally, the Internet is globally accessible 24 hours a day, allowing all advertisements placed in this medium to benefit from broad and potentially constant exposure. Advertisements placed on the Internet can also be changed quickly and frequently, accommodating the rapid incorporation of new information or technology.[29]

Figure 4
Activities foregone to spend time on the computer



Source: Forrester Research, Inc.; as found in "Why Internet Advertising?" *Mediaweek*, May 5, 1997, found at Internet address http://www.umi.com/proquest, retrieved, May 26, 1998.

[28] "Why Internet Advertising?," *Mediaweek*, May 5, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 14, 1998.

[29] Meeker, *The Internet Advertising Report*, p. 1-9.

Demographics

Internet users as a whole represent a relatively wealthy and highly educated segment of the population, and advertisements placed on this medium can be precisely targeted to reach this segment. The typical Internet user is 35 years old, belongs to a household with an annual income of $60,800, and is college educated. In comparison, 46 percent of the overall U.S. population is college educated, while 35 percent belong to households with annual incomes greater than $50,000.[30] Internet advertisers can target their advertising campaigns more precisely through the use of technology that determines what type of user is typically viewing a particular Internet page. As mentioned, ad networks may use "cookies" to determine the behavior and preferences of particular Internet users.[31]

Diverse Utility

Unlike advertisements placed in traditional media, advertisements placed on the Internet can simultaneously fulfill several advertising objectives with comparable utility. Like all projects, advertising campaigns are undertaken to accomplish certain objectives (figure 5), and it is these purposes which, in part, determine what type of media an advertiser will use. For instance, advertisements meant to educate consumers reportedly are most effective when placed in radio, direct mail, or print media. However, radio and print ads cannot sustain a brand image as effectively as advertisements placed in a visual medium such as outdoor or television media. Advertisements placed in television, outdoor, radio, and print media can all develop brand awareness with varying effectiveness, but direct mail advertisements are even more effective in generating a consumer response. Unlike traditional media, the Internet, which is a visual medium capable of conveying large amounts of information and soliciting an immediate response, can fulfill all of these objectives.[32] Thus, the Internet appears to be a most versatile advertising tool.

In addition, some studies have shown that Internet ad banners are likely to create a lasting impression. According to one frequently cited study, an ad banner increases brand awareness and customer loyalty after just a single viewing, whether or not the Internet user clicks-through the advertisement. This study suggests that in fact the Internet is more effective than television in creating brand awareness because the Internet is an interactive medium, requiring users to read and search for particular sites or information. In contrast, television is a passive medium that does not require constant viewer attention.[33] Overall, the nature of the Internet, together with its rapid growth, presents advertisers with unique advantages that could encourage increased spending for Internet ads.

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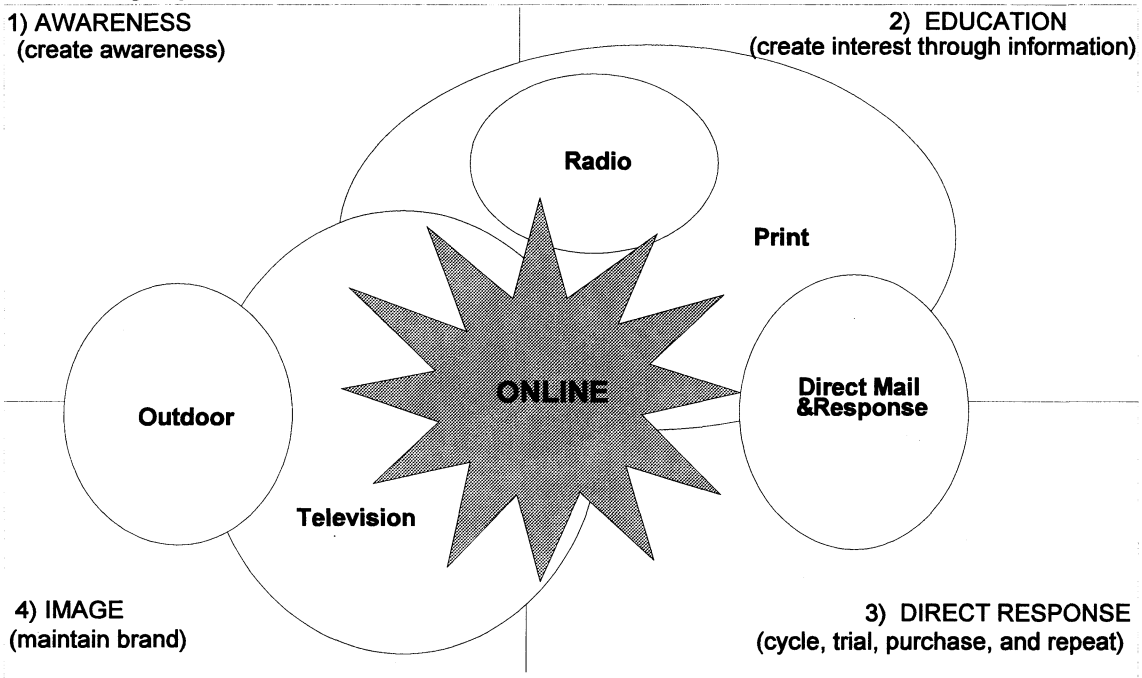
[30] "Why Internet Advertising?," *Mediaweek.*

[31] Moukheiber, "DoubleClick Is Watching You."

[32] Meeker, *The Internet Advertising Report*, p. 1-8 - 1-9.

[33] Rex Briggs and Nigel Hollis, "Advertising on the Web: Is There Response Before Click-through?," *Journal of Advertising Research*, Mar./Apr. 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 16, 1998.

Figure 5
Advertising objectives of various media



Source: Steve Goldberg, Microsoft Advertising Business Unit; as found in Morgan Stanley Dean Witter, *The Internet Advertising Report.*

Issues and Concerns

Pricing

Questions remain concerning the effectiveness and value of Internet advertising. Specifically, disagreement exists within the advertising industry concerning which methods and metrics to use when pricing and measuring the impact of Internet advertisements. Several companies currently publish Internet ratings, each using a different method of measuring traffic across Internet pages. These various methodologies frequently produce disparate rankings, and as advertising arrangements are often based on such ratings, the particular research methodologies used by these research organizations are of great concern to Internet publishers.[34]

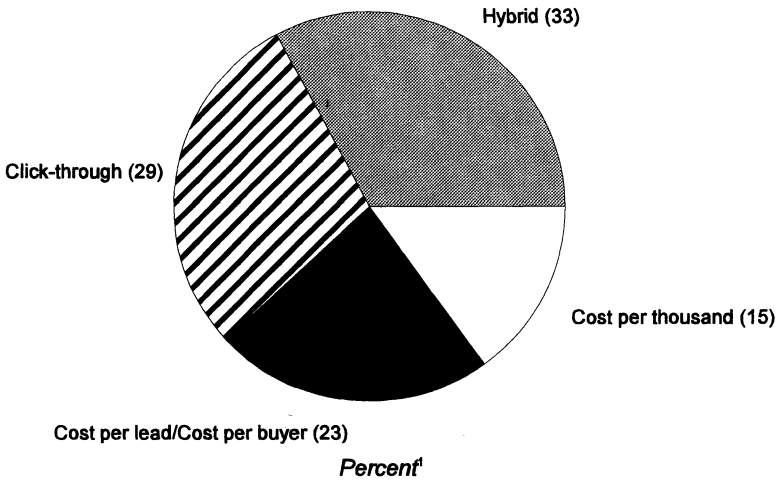
The publisher's responsibility seems to be the focus of disagreements concerning the relative value of Internet ad pricing schemes.[35] Presently, Internet advertising space is

[34] Kate Maddox, "Web Ratings Lists Make or Break Some Ad Deals," *Advertising Age*, Apr. 1998, found at Internet address http://www.adage.com, retrieved Apr. 13, 1998.

[35] Bill Harvey, "The Expanded ARF Model: Bridge to the Accountable Advertising Future," *Journal of Advertising Research*, Mar./Apr. 1997, found at Internet address

(continued...)

Figure 6
Pricing method preferences among Web advertisers



[1] Of 52 advertisers interviewed, percentage preferring each pricing model.
Source: Forrester Research; as found in Morgan Stanley Dean Witter, *The Internet Advertising Report*.

typically sold on a cost-per-thousand (CPM) basis,[36] a payment method that accounts for 86 percent of all online advertising revenues.[37] According to this model, advertising is priced per thousand exposures.[38] However, a poll conducted by one research firm revealed that advertisers prefer pricing models that are based totally or partially on results (figure 6).[39] Cost-per lead, wherein advertisers pay per request for additional information, and payment per click-through are both results-based pricing methods used by some Internet publishers.[40] Advertisers might maintain that click-throughs are the more accurate ad pricing method. However, Internet publishers may object to such a model because they have no control over the quality of, and thus the rate of response to, the advertisements being placed on their sites.[41] Since popular sites reportedly do not need to offer results-based payment methods

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[35] (...continued)
http://www.umi.com/proquest, retrieved May 8, 1998.

[36] John Spooner, "New Online Ad Network, Aaddzz, To Launch," *Brandweek*, July 7, 1998, found at Internet address http://www.umi.com/proquest, retrieved May 8, 1998.

[37] "1st Quarter Internet Ad Revenue Hits $351.3 Million," *Advertising Age*, June 18, 1998, found at Internet address http://www.adage.com, retrieved June 18, 1998.

[38] Meeker, *The Internet Advertising Report*, p. 7-2.

[39] Ibid., p. 7-3.

[40] Beth Snyder, "Pay-per-lead Makes Inroads as Online Ad Pricing Method," *Advertising Age*, Mar.30, 1998, p. 41.

[41] Harvey, "The Expanded ARF Model: Bridge to the Accountable Advertising Future."

in order to attract advertisers, CPM will likely continue to be more prevalent.[42] Nevertheless, each of these payment methods is currently being used, creating inconsistency in the Internet advertising market.

Privacy

Certain factors related to online advertising, particularly "spam" and "cookies," raise concerns regarding privacy on the Internet. For example, "spam" is not only invasive and often unwelcome, but costly due to time wasted sorting incoming E-mail and deleting unwanted messages.[43] The practice of monitoring Internet users' behavior through the use of "cookies" engenders consumer anxieties regarding security. Such anxieties lead Internet users to avoid Internet site registration or to register using falsified information, making it difficult for advertisers to gather valid demographic information.[44] Thus, privacy concerns could negatively effect the information gathering ability of online advertisers.

Multiple Jurisdictions

The Internet's global audience, while beneficial due to its size, also poses important difficulties for advertisers regarding jurisdiction. Because advertisements placed on the Internet can be viewed in different countries, Internet ads are potentially subject to a multitude of national advertising regulations. These regulations, which include laws regarding comparative advertising, language, and the advertising of financial services or products, often differ from U.S. advertising law.[45] Likewise, many countries have strict regulations regarding advertising directed toward children, and the presence of such advertising on the Internet has raised international concern[46] and precipitated the establishment of voluntary guidelines.[47] Internet advertisers can address these various regulations to some extent by seeking legal advice from foreign counsel and using appropriate disclaimers.[48] However, the large number of advertising laws around the world, together with their legal ramifications, can be a significant obstacle to Internet advertising.

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[42] Bill Doyle, Mary A. Modahl, and Ben Abbott, "What Advertising Works," *Mediaweek*, May 5, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 23, 1998.

[43] Rebecca Sykes, "Privacy Debates Get More Complicated Overseas," *InfoWorld*, Nov. 3, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 16, 1998.

[44] Associated Press, "Too Many Cookies Could Spoil the Internet Feast," *Marketing News*, July 7, 1997, found at Internet address http://www.umi.com/proquest, retrieved Mar. 5, 1998.

[45] Lewis Rose and John P. Feldman, "Before You Advertise on the 'Net--Check the International Marketing Laws," *Bank Marketing*, May 1996, found at Internet address http://www.umi.com/proquest, retrieved Jan. 16, 1998.

[46] Nora FitzGerald, "Kids' Stuff on the Global Stage," *World Trade*, June 1996, found at Internet address http://www.umi.com/proquest, retrieved Jan. 22, 1998.

[47] "Children's Advertising Review Unit Issues Advertising Guidelines to Protect Children on the Internet," *Direct Marketing*, May 1997, found at Internet address http://www.umi.com/proquest, retrieved Mar. 16, 1998.

[48] Lewis Rose and John Feldman, "How to Stay Within International Law on the Internet," *Folio: The Magazine for Magazine Management*, 1998, found at Internet address http://www.umi.com/proquest, retrieved Jan. 16, 1998.

Regulation

Various government and international organizations have addressed the regulation of Internet advertising. For example, the World Health Organization (WHO) has reportedly turned its attention towards Internet advertising of medical products, an effort in which the Food and Drug Administration (FDA) is planning to participate.[49] The Federal Trade Commission (FTC) is currently in the process of determining how the disclosure statements that often accompany advertisements should be displayed on the Internet.[50] Moreover, the International Chamber of Commerce (ICC) has established Internet advertising guidelines. Among other recommendations included within these guidelines, advertisers are advised to follow the laws applicable in the jurisdiction from which the advertisement is sent, and cautioned to be sensitive to the cultural differences of their worldwide audience.[51]

Efforts to regulate the Internet as a whole may also affect the online advertising sector. Recently, the United States asked the World Trade Organization to develop regulations regarding Internet commerce. Specifically, the United States proposed the codification of the present duty-free treatment of electronic transmissions,[52] a plan that coincides with current U.S. policy encouraging self-regulation on the part of the Internet industry.[53] The development of such an agreement will reportedly involve such larger issues as government regulation of the Internet,[54] although it is not clear how such efforts would affect the provision of Internet advertising services in particular. In addition, the European Union (EU) has proposed the development of an international Internet charter that would address issues such as intellectual property rights, taxes, and the transmission of pornographic material. Though the need for Internet cooperation is widely acknowledged, some U.S. officials are concerned that over-regulation could result from such a charter.[55] However, both the Internet and the Internet advertising sector generally remain largely unregulated.

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[49] Jill Wechsler, "Communications Slowdown," *Pharmaceutical Executive*, July 1997, found at Internet address http://www.umi.com/proquest, retrieved Apr. 14, 1998.

[50] Ira Teinowitz, "FTC Weighs Web Ad Disclosure Issue," *Advertising Age*, May 18, 1998, p. 48, and Federal Trade Commission, press release, "FTC Announces Proposal to Clarify How the Law Will Apply to Advertising and Commercial Transactions on the Internet," May 6, 1998, found at Internet address http://www.ftc.gov, retrieved Aug. 26, 1998.

[51] "New International Code Covers Ethics of On-line Advertising," *Business World*, Apr. 19, 1998, found at Internet address http://www.iccwbo.org, retrieved May 4, 1998.

[52] Robert Evans, "U.S. Urges WTO To Draw Up Rules for Internet Trade," 1998, found at Internet address http://www.reuters.com, retrieved Feb. 19, 1998, and United States Information Agency, Public Diplomacy Query database, "Amb. Hayes to WTO on Electronic Commerce Proposal," Feb. 19, 1998, found at Internet address http://www.pdq2.usia.gov, retrieved Aug. 26, 1998.

[53] *A Framework For Global Electronic Commerce: Executive Summary*, found at Internet address http://www.whitehouse.gov, retrieved Feb. 23, 1998.

[54] Evans, "U.S. Urges WTO To Draw Up Rules for Internet Trade."

[55] "EU Official Sees Internet Charter Momentum," *CNN Interactive*, Apr. 21, 1998, found at Internet address http://www.cnn.com, retrieved Apr. 22, 1998, and United States Information Agency, Public Diplomacy Query database, "Secretary Daley 6/22 Remarks on Electronic Commerce," July 23, 1998, found at Internet address http://www.pdq2.usia.gov, retrieved Aug. 26, 1998.

Internet Standardization

Few standards regarding Internet advertising currently exist. However, recent private sector efforts have led to the proposal or establishment of some guidelines. The Internet Advertising Bureau (IAB), established in 1996, is an association of industry representatives that encourages the use of the Internet as an advertising medium and promotes Internet advertising effectiveness.[56] Based in the United States, the IAB has recently established chapters in Germany, Canada,[57] and France.[58] In the near future, chapters may also be established in the Netherlands and the United Kingdom.[59]

The IAB has simplified the creation of Internet advertisements to some extent by establishing standard ad banner sizes. Before the establishment of these standards, each Internet site formulated its own size requirements, making it necessary to create many different ad banners for a single advertising campaign.[60] The IAB standards recognize eight banner sizes, a significant reduction from the more than 250 banner sizes that had been used by various Internet sites.[61] These standards are not mandatory, and according to one source, ad banner sizes continued to proliferate after the establishment of these standards.[62] However, the IAB standards have been accepted by several key Internet publishers.[63]

More recently, the IAB has proposed standard terminology regarding the measurement of advertising data in a document entitled, "Metrics and Methodology." In this document, metrics are put forward according to which audience size can be defined, reported, and verified.[64] Like its standard banner sizes, the IAB's metrics are meant to introduce some consistency and rationality into the Internet advertising industry.[65] Reportedly, the IAB may

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[56] "Internet Advertising Bureau To Launch in Europe," *Advertising Age*, Sept. 25, 1997, found at Internet address http://www.adage.com, retrieved Jan. 27, 1998.

[57] The Internet Advertising Bureau (IAB), "Internet Advertising Bureau Launches International Member Organizations," Dec. 15, 1997, found at Internet address http://www.iab.net, retrieved Jan. 12, 1998.

[58] IAB, "Internet Media Professionals Forming the French Chapter of the Internet Advertising Bureau," Feb. 9, 1998, found at Internet address http://www.iab.net, retrieved Apr. 14, 1998.

[59] Ibid.

[60] Mike Hewitt, "IAB Sizes Up Standard Net Ads," *Marketing*, Feb. 27, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 22, 1998.

[61] Tony Case, "Industry Backs Banner-Ad Standards," *Folio: The Magazine for Magazine Management*, Apr. 15, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 16, 1998.

[62] "Banner Ad Standards Go by Wayside?," *Advertising Age*, Apr. 22, 1997, found at Internet address http://www.adage.com, retrieved Jan. 27, 1998.

[63] Case, "Industry Backs Banner-Ad Standards."

[64] IAB, press release, "IAB Publishes Guidelines for Measurement for Comparable Online Ad Data; Industry Group Announces Endorsement," Sept. 16, 1997, found at Internet address http://www.iab.net, retrieved Apr. 1, 1998.

[65] Ibid.

also come to an agreement with Digital Marketing Group regarding international Internet measurement guidelines in the near future.[66]

U.S. and Foreign Participation in Internet Advertising

According to one source, there were 120 million[67] Internet users around the world in May 1998, a significant increase from the 57 million Internet users reported in February 1997. Internet use in the United States, the world's largest Internet market, also increased from between 40 and 45 million in April 1997, to 62 million in February 1998. The number of Internet users in Europe, the Asia/Pacific[68] region, and South America was estimated at 24 million, 18 million, and 7 million, respectively, in May 1998.[69]

As noted earlier, Internet ad spending outside the United States is relatively low. In the United Kingdom, for example, few companies reportedly advertise on the Internet regularly, and there is an excess supply of online advertising space.[70] Nevertheless, Internet advertising growth in non-U.S. markets has been very rapid. For instance, a Japanese advertising firm reportedly estimated that Japanese online advertising would increase by 250 percent between 1996 and 1997.[71] The sale of Canadian Internet ad space increased from $1.6 million to $10 million between 1996 and 1997, with 1998 revenues expected to total $22.9 million.[72] In Europe as a whole, online advertising spending reportedly may increase from the 1997 level of $50 million to $4.3 billion in 2002.[73] A British Internet advertising agency suggests that British revenues from Internet advertising will increase from $9.9 million in 1997 to $32.9 million in 1998.[74] Likewise, French Internet advertising revenues increased from $0.7 million to $3.6 million between 1996 and 1997, and 1998 revenues are

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[66] Binnur Beyaztas, "Industry Measures Up," *Marketing*, May 14, 1998, found at Internet address http://www.umi.com, retrieved May 27, 1998.

[67] Both adult and adolescent Internet users are included in this figure.

[68] Internet use in Australia and New Zealand is included in this figure.

[69] "How Many Online?," *NUA Internet Surveys*, found at Internet address http//:www.nua.ie/surveys, retrieved May 22, 1998 and Jun. 1, 1998.

[70] Claire Murphy, "Web Is Lagging in Ads," *Marketing*, Apr. 30, 1998, found at Internet address http://www.umi.com/proquest, retrieved May 13, 1998.

[71] Rob Guth, "Internet Advertising in Japan Expected To Rise By 250% This Year," *Computerworld*, Apr. 7, 1997, found at Internet address http://www.umi.com/proquest, retrieved Jan. 16, 1998.

[72] Internet Advertising Bureau of Canada, press release, "New Research Shows 1997 Canadian Internet Advertising Revenue Growing More than 500%," May 12, 1998, found at Internet address http://www.iabcanada.com, retrieved May 15, 1998.

[73] "Interactive Advertising Expected to Billow in Europe," *Datamonitor*, Mar. 23, 1998, found at Internet address http://www.nua.ie, retrieved Apr. 15, 1998.

[74] "UK Internet Advertising to USD10 Million for 1997," *Internet News*, Aug. 27, 1997, found at Internet address http://www.nua.ie, retrieved Feb. 26, 1998. Internet ad spending values, which were expressed in British pounds within this article, were converted to $US values at http://www.itools.com/research-it, July 6, 1998.

expected to equal between $8.2 and $12.3 million.[75] Such rapid growth creates opportunities for U.S. firms to provide Internet advertising services abroad.

U.S. advertising and online advertising firms principally have a competitive advantage in the Internet advertising sector because of their early entry into this industry.[76] The United States dominates the Internet in terms of both usage and ad spending. For example, one source estimated that while U.S. Internet ad spending would total approximately $940 million in 1997, online ad spending in Europe as a whole will not surpass $1 billion until 2003.[77] As a result of these factors, U.S. advertising firms operating abroad possess greater Internet advertising experience than their foreign counterparts, which has attracted foreign clients who cannot find comparable services locally.[78] However, as U.S. firms are naturally less familiar with foreign markets than native service providers, the use of local talent is increasing in the overseas Internet advertising ventures of U.S. companies.[79]

Statistics illustrating the level of international trade in Internet advertising services are not presently available. However, it is clear that U.S. firms have been providing online advertising services to foreign clients and establishing a commercial presence abroad. For example, Yahoo!, a U.S. Internet media provider[80] that sells advertising space on its sites, has properties in Asia, Australia, Canada, France, Germany, Japan, the United Kingdom, and other locations.[81] Infoseek, a U.S. Internet search engine which also sells ad space on its site, provides services directed towards countries such as France, Germany, Italy, Japan, and the United Kingdom. In some cases, Infoseek supplies these services through partnerships with local firms that furnish directory services.[82] DoubleClick, an Internet advertising network, has established overseas offices in Australia, Canada, France, Italy, Japan, Sweden, Spain, and the United Kingdom.[83] Likewise, the U.S. media firm Agency.com has established a London office for the purpose of serving at least one major British client, and has acquired a majority interest in a British firm specializing in new media.[84]

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[75] Christine Tierney, "Interview– French 1998 Web Ad Spend Seen Doubling," *Infoseek News Channel*, Feb. 9, 1998, found at Internet address http://www.infoseek.com, retrieved Feb. 17, 1998. Internet ad spending values, which were expressed in French francs within this article, were converted to $US values at http://www.itools.com/research-it, July 6, 1998.

[76] Laura Rich, "Net Lag," *Adweek*, Nov. 17, 1998, found at Internet address http://www.umi.com/proquest, retrieved Jan. 14, 1998.

[77] Ibid.

[78] Ibid.

[79] Ibid.

[80] "Yahoo! Launches First Euro Ads," *Marketing*, Mar. 12, 1998, found at Internet address http://www.umi.com/proquest, retrieved May 4, 1998.

[81] "Yahoo! Launches Yahoo! Chinese," *Infoseek News Channel*, May 4, 1998, found at Internet address http://www.infoseek.com, retrieved May 4, 1998.

[82] Infoseek, press release, "Infoseek Launches Infoseek Germany," May 27, 1997, found at Internet address http://info.infoseek.com, retrieved June 1, 1998.

[83] "DoubleClick Expands to France," *Advertising Age*, June 22, 1998, found at Internet address http://www.adage.com, retrieved June 22, 1998.

[84] Rich, "Net Lag."

15

Future Prospects

As the Internet matures as a medium, new regulations, changing economic conditions, and new technologies may have an impact on the effectiveness and profitability of Internet advertising. For example, software that can eliminate advertising from an Internet page is continually being developed[85] because the presence of advertising on an Internet page may slow the downloading process or annoy Internet users.[86] Programs such as AdWiper, CYBERsitter, interMute, JunkBuster, and WebEarly block advertisements and, depending on the program, may also be able to block data such as "cookies," music, animation, and pornographic Internet sites.[87] The existence of this software does not generally concern advertisers because individuals who are bothered by advertisements are not likely to be influenced by them, and because the number of people who install such software may be small.[88] Similarly, software that blocks "spam" has been developed.[89] "Spam" has also been the subject of lawsuits and proposed legislation.[90] Presently, these developments do not seem to have had a significant effect on the provision or effectiveness of Internet advertising services. However, they do illustrate the type of change that may affect the Internet advertising sector in the future.

Although online advertising has been in existence for less than 4 years, it seems to have become a permanent feature of the Internet. As noted earlier, Internet use and Internet advertising revenues in the United States and foreign markets have grown rapidly in recent years, and they are expected to continue. Presently, foreign markets are far behind the United States in terms of Internet advertising revenues, and international Internet advertising activity, although growing, remains relatively small. Yet because the United States has a competitive advantage in the Internet advertising sector, the U.S. economy will likely benefit from the increased trade opportunities in Internet advertising services that likely will result from continued growth in this global market. ■

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[85] Beth Snyder, "WebWiper, JunkBuster Erase Ads on the Net," *Advertising Age*, Apr. 1998, found at Internet address http://www.adage.com, retrieved Apr. 27, 1998.

[86] "CYBERsitter Now Blocks Web Site Advertising," *Infoseek News Channel*, Feb. 12, 1998, found at Internet address http://www.infoseek.com, retrieved Feb. 17, 1998.

[87] Ibid.; and Snyder, "WebWiper, JunkBuster Erase Ads on the Net."

[88] Snyder, "WebWiper, JunkBuster Erase Ads on the Net."

[89] Greg Lefevre, "Surfing Silicon Valley: Spam Scram," *CNN Interactive*, Mar. 26, 1998, found at Internet address http://www.cnn.com, retrieved Mar. 27, 1998.

[90] "Spammers Abated," *Advertising Age*, Mar. 12, 1998, found at Internet address http://www.adage.com, retrieved Mar. 12, 1998; and "President of Junk E-mail Company Apologizes Online," *CNN Interactive*, Apr. 16, 1998, found at Internet address http://www.cnn.com, retrieved Apr. 16, 1998.

PROGRESS IN RECOGNIZING AND REGULATING GLOBAL PROFESSIONAL SERVICE PROVIDERS

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Trade in business, professional,[1] and technical services has risen substantially in recent years, as globalization in manufacturing and services has helped propel demand. Efforts are underway in multilateral and regional trade fora to ensure that needed disciplines do not discriminate against global professional service providers or unnecessarily restrain market entry. This article examines recent efforts to improve opportunities for trade in professional services, under the auspices of the World Trade Organization, the Organization for Economic Cooperation and Development, the Asia-Pacific Economic Cooperation forum, and the North American Free Trade Agreement.

The U.S. service sector, led in part by the professional services, continues to exert a strong positive effect on overall U.S. trade performance.[2] The current account of the U.S. balance of payments in 1997 shows that U.S. cross-border service exports exceeded imports by nearly $88 billion[3] and offset 44 percent of the merchandise trade deficit of $198 billion.[4] In recent years, average annual growth rates for trade in professional services, combined with business and technical services, have far surpassed rates for private-sector services trade as a whole.[5] During 1990-97, U.S. exports of business, professional, and technical services rose by an average annual rate of more than 17 percent, compared with almost 11 percent for exports of all private-sector services (table 1). Imports of business, professional, and technical services grew more than twice as fast as imports of all private-sector services

[1] Professional service industries chiefly include accountancy and related services such as auditing, bookkeeping, and tax services; architecture and engineering services; health care services; and legal services. In reporting U.S. international transactions, the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce (USDOC) includes data on professional services among transactions spanning a broad spectrum of services identified as business, professional, and technical services.

[2] For additional information, see U.S. International Trade Commission, *Recent Trends in U.S. Services Trade*, Inv. No. 332-345, USITC publications 3105, May 1998, and 3041, May 1997, and *U.S. Trade Shifts in Selected Industries: Services*, same investigation, publication 2969, June 1996.

[3] Data cited include both public-sector and private-sector transactions.

[4] U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. International Transactions, First Quarter 1998," *Survey of Current Business*, July 1998, p. 59.

[5] Data cited for private-sector services exclude public-sector transactions related to operating the military and U.S. embassies.

17

Table 1
Total private-sector services and business, professional, and technical services: U.S. exports and imports, and average annual rate of growth, 1990-97

Services	1990	1991	1992	1993	1994	1995[1]	1996[1]	1997	1990-97[2]
	Million dollars								*Percent*
Total private-sector:									
Exports	137,224	152,413	163,926	172,357	184,195	204,229	222,134	239,215	10.6
Imports	100,570	102,671	104,157	111,947	122,620	133,355	142,261	156,236	7.9
Business, professional, and technical:									
Exports	6,951	11,249	11,994	13,446	15,893	16,064	17,599	21,304	17.4
Imports	1,891	2,785	2,835	3,350	3,628	4,822	5,550	6,571	19.5

[1] Revised.
[2] Average annual rate of growth.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, International Accounts Data, found at Internet address http://www.bea.doc.gov/bea/di1.htm, and *Survey of Current Business*, July 1998.

(19.5 percent and 8 percent, respectively). Such growth helps explain the considerable importance that the United States and its trading partners have attached to professional services in recent years. Nevertheless, professional service providers are often stymied by market access, national treatment, and other barriers that inhibit them from practicing in foreign markets.

Nations can facilitate trade in professional services by standardizing criteria to guide reform of regulations and procedures for assessing foreign professionals' education, training, and experience. Equally important, nations can help by eliminating duplicative, time-consuming, and discriminatory requirements in different markets.[6] Through such efforts, regulators can still ensure that both foreign and domestic service providers are competent and held accountable. Accordingly, multilateral and bilateral trade bodies have begun to promote development of new approaches on regulations and procedures that facilitate the mobility of foreign professional service providers. Such development is ongoing at the World Trade Organization (WTO), the Organization for Economic Cooperation and Development (OECD), the Asia-Pacific Economic Cooperation (APEC) forum, and under the North American Free Trade Agreement (NAFTA). Various regional economic or trade blocs[7], and professional organizations, both international and national, are also at work in this area, and may ultimately improve opportunities for trade in professional services.

[6] Geza Feketekuty, "Trade in Services: Bringing Services into the Multilateral Trading System," paper, Center for Trade and Commercial Diplomacy, Monterey Institute of International Studies, Monterey, CA, found at Internet address http://www.miis.edu/, posted Feb. 23, 1998, retrieved May 7, 1998.

[7] For example, in Spring 1998, negotiations of a Free Trade Area of the Americas (FTAA) were launched by 34 Western Hemisphere countries.

WTO Working Party on Professional Services

Starting in 1995, the WTO's Working Party on Professional Services (WPPS)[8] has chiefly focused on issues relating to accountancy, the priority professional service sector in the Ministerial Decision on Professional Services.[9] The Ministerial decision called for the development of multilateral disciplines on the regulation of accounting services. These disciplines are to ensure that domestic regulatory requirements are based on objective and transparent criteria;[10] are not more burdensome than necessary to ensure quality service; and, in the case of licensing procedures, do not in themselves restrict supply of the service.[11] Further, in accordance with the Ministerial decision, the WPPS has endeavored to establish guidelines for recognizing service providers' foreign-acquired qualifications in accountancy and to monitor development of international accounting standards in cooperation with relevant international organizations.

Accomplishments and Prospective Activity

The WPPS agreed to a set of nonbinding guidelines for mutual recognition agreements (MRAs)[12] in accountancy, which was then adopted by the Council for Trade in Services in May 1997. The guidelines are intended to simplify the negotiation of agreements on mutual recognition of professional qualifications, and to help third parties negotiate accession to MRAs and comparable agreements.[13] Further, a WTO press release indicated that the guidelines would curtail the emergence of new disparities between national recognition regimes.[14]

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[8] The WPPS is a subsidiary body of the WTO's Council for Trade in Services. As recommended in the Uruguay Round Ministerial Decision on Professional Services, the Council for Trade in Services established the WPPS, subsequently overseeing its progress and considering adoption of its work. In so doing, the Council for Trade in Services partially fulfills responsibilities to facilitate liberalization in services trade as set forth in the General Agreement on Trade in Services (GATS). The GATS and various other agreements negotiated during the Uruguay Round are annexed to the Agreement Establishing the World Trade Organization. The WTO entered into force on January 1, 1995, as the institutional foundation of the multilateral trading system.

[9] World Trade Organization (WTO), *The Results of the Uruguay Round of Multilateral Trade Negotiations* (Geneva: WTO, 1995).

[10] Ibid. Such criteria include competence and the ability to supply the service, as indicated in the GATS, Part II (General Obligations and Disciplines), Article VI (Domestic Regulation), par. 4.

[11] WTO, *The Results of the Uruguay Round of Multilateral Trade Negotiations.*

[12] In a mutual recognition agreement on a professional service, the relevant licensing authorities accept, in whole or in part, education, experience, licensing or certification obtained in the territory of another party or parties to the agreement, in assessing the qualifications of a foreign applicant for licensing or certification.

[13] Official of the United States Trade Representative (USTR), interview with USITC staff, Apr. 23, 1998.

[14] WTO, press release, "WTO Adopts Guidelines for Recognition of Qualifications in the Accountancy Sector," May 29, 1998. 19

The WPPS is also nearing adoption of legally binding disciplines for the domestic regulation of accountancy.[15] A fundamental objective of the WPPS statement is to identify the types of measures relating to qualification requirements and procedures, technical standards, and licensing requirements that do not constitute unnecessary barriers to trade in services.[16] Another important objective of this process is to give an opportunity to all interested parties to comment on proposed measures before adoption.[17]

The working party has also monitored further development of internationally comparable accounting standards, by observing work underway elsewhere and encouraging WTO members to cooperate with relevant international organizations.[18] The WPPS hosted informal briefing sessions on progress achieved by the International Accounting Standards Committee (IASC) and the International Organization of Securities Commissions (IOSCO) in reconciling or drafting international accounting and financial reporting standards. These standards, intended to achieve greater comparability in financial statements for cross-border transactions, are targeted for completion in 1998.[19]

As the WPPS nears completion of activity on accountancy, the working party is expected to pursue other selected issues outlined under its mandate. Options include developing guidelines and clarifications for WTO members to use in areas other than accountancy.[20] Such work may pertain to either individual professional services or a range of professions sharing common principles and rules.

Organization for Economic Cooperation and Development (OECD)

International trade restrictions encountered by professionals prompted the OECD to hold a series of workshops with business and government representatives, beginning in 1994. Results of these workshops were provided to the WTO for distribution to all WTO members. As an outgrowth of the first workshop, the OECD Secretariat began a study on professional services, focusing on accounting, architecture, engineering, and law. Following the second workshop in 1995, the OECD presented its findings. Designed to complement rather than duplicate activities of the WPPS, the finished work is considered the most comprehensive examination of the four professions ever conducted in OECD countries.[21] The study

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[15] Official of USTR, telephone interview with USITC staff, July 2, 1998.

[16] WTO, *The Results of the Uruguay Round of Multilateral Negotiations.*

[17] Official of USTR, interview with USITC staff, Apr. 23, 1998.

[18] The term "relevant international organizations" refers to international bodies whose membership is open to the relevant bodies of at least all WTO members. GATS, Part II, Art. VI (Domestic Regulation), para. 5(b).

[19] For information on a comparative study of existing IASC international accounting standards and U.S. generally accepted accounting principles (GAAP) issued by the Financial Accounting Standards Board (U.S.) and others, see Internet address http://www.rutgers.edu/accounting/, retrieved Feb. 23, 1998.

[20] Official of USTR, interview with USITC staff, Apr. 23, 1998.

[21] Ibid.

examined professional activity in 25 member countries and compiled an inventory of regulatory measures.

Accomplishments and Prospective Activity

At the third workshop, held in February 1997, participants analyzed regulations regarded as unnecessarily burdensome to trade in professional services. They also discussed how the regulations could be reformulated to reduce restrictiveness without sacrificing consumer protection. Workshop participants agreed on general principles, specific policy recommendations, and a work plan to advance the goal of liberalizing trade and investment in professional services. Recommendations included--

- Freedom of professional service providers to choose their own form of establishment, including incorporation, on a national treatment basis.
- Removal of restrictions on partnerships of foreign professionals with locally licensed professionals, starting with the right to form temporary associations for specific projects.
- Removal of restrictions on market access, based on nationality.
- Review and relaxation of restrictions on foreign participation in ownership of professional service firms.
- Review and relaxation of local-presence requirements, subject to adequate consumer information and professional liability guarantees.
- Cooperation of national regulatory bodies to promote recognition of foreign qualifications and competence and to develop arrangements upholding ethical standards.

Ongoing negotiations on a multilateral agreement on investment (MAI), which involve OECD countries and the European Union (EU), could ultimately have a wide impact on professional services and other industries. Further, if successfully completed, the MAI likely would be open to all non-OECD countries prepared to protect foreign investors from discrimination, remove barriers to foreign investment, and afford appropriate levels of protection to foreign investments.[22]

Continuing joint discussions by the OECD Committee on Capital Movements and Invisible Transactions (CMIT) and the Committee on International Investment and Multinational Enterprise (CIME) focus on review of member country restrictions and reservations on cross-border trade in professional services[23] that may be inconsistent with the OECD Code of Liberalization of Current Invisible Operations.[24] The OECD Secretariat has agreed to

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[22] United States Trade Representative, *1998 Trade Policy Agenda and 1997 Annual Report* (Washington, DC: GPO, 1998), p. 160.

[23] Organization for Economic Cooperation and Development (OECD), "The OECD Codes of Liberalization," found at Internet address http://www.oecd.org/daf/cmis/codes/, retrieved Sept. 30, 1998.

[24] Under the code, OECD members agree to eliminate restrictions on current invisible transactions and transfers, referred to as current invisible operations, in a nondiscriminatory

(continued...)

prepare an outline of proposed review work, although each delegation reserved the right to decide whether to undertake such a review. Other activity may be conducted under the authority of the Working Party of the Trade Committee (TCWP), which is considering the efficacy of cataloguing and assessing barriers to trade and investment in professional services.[25]

Asia-Pacific Economic Cooperation

Beginning in 1996, Asia-Pacific Economic Cooperation (APEC) economies drafted individual action plans (IAPs) to implement objectives in 14 trade and trade-related areas, including services.[26] Subject to annual reviews by other APEC economies and revised continuously, the IAPs are expected to be a leading element in helping members accomplish the APEC goal of free and open trade and investment in the region by 2010 for industrialized economies and by 2020 for developing economies.[27]

Additionally, many APEC committees, working groups, and experts on specific technical topics regularly consider issues affecting economic cooperation, trade, and investment in services. Among the most important such groups seeking to sharpen APEC's focus on services is the Committee on Trade and Investment (CTI).

Accomplishments and Prospective Activity

The CTI established an informal subgroup known as the Group of Services (GOS), which began work in 1997. In its first year, the GOS crafted a collective action plan (CAP) for services, comprising a list of tasks and corresponding timetables, which was intended to address the goals set forth for services as found in the Osaka Action Agenda (table 2).[28] One action particularly pertinent to professional services calls for study and work concerning the development and adoption of mutually acceptable professional standards. Accordingly, the GOS agreed that by 2005 it would identify requirements for the provision of professional

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[24] (...continued)
manner. Adopted December 18, 1961, the code is binding on OECD members. Additional detail about the code, including individual OECD members' reservations to the liberalization obligations under the code, may be found at the OECD's Internet address, http://www.oecd.org/.

[25] U.S. Department of State telegram, "OECD Trade Working Party Sorts Out Priorities on E-Commerce, Services, and Non-Tariff Barriers," message reference No. 014081, prepared by U.S. Mission to the OECD, Paris, June 23, 1998.

[26] The 14 areas, as agreed in the Osaka Action Agenda in 1995 in Osaka, Japan, include tariffs, nontariff measures, services, investment, standards and conformance, customs procedures, intellectual property rights, competition policy, deregulation, government procurement, rules of origin, dispute mediation, mobility of business people, and implementation of Uruguay Round outcomes.

[27] APEC leaders reached agreement on the goal of free and open trade, known as the Bogor Declaration, in Indonesia in 1994.

[28] Asia-Pacific Economic Cooperation (APEC) forum, Committee on Trade and Investment (CTI), "1997 Collective Action Plans Including Annual Report to Ministers," found at Internet address http://www.apecsec.org.sg/cti/, retrieved Mar. 20, 1998.

22

Table 2
Collective action plans (CAPs) of APEC expert group on the mobility of business people, 1997

Osaka Action Agenda[1]	Steps to implement	Time frame
1. Exchange information on regulatory regimes relating to the mobility of business people in the region.	Survey members' regulations and requirements relating to short-term entry for business people.	Survey completed
	Survey members' regulations and requirements relating to temporary residency of business people.	1997-98
	Publish and maintain APEC Business Travel Handbook for distribution to the business community (hard copy and Internet), covering short-term business travel requirements and requirements relating to temporary residency.	1997-ongoing
	Facilitate policy dialogue between border management and other relevant officials on regulatory regimes relating to short-term travel and business residency.	1997-ongoing
2. Examine the possibility of setting the scope for cooperation at a regional level aimed at streamlining and accelerating processing of visas for short-term travel.	Identify possible areas for regional cooperation including, among others: • Multiple entry visas • Visa waiver arrangements • Development of and participation in special travel schemes, including APEC Business Travel Card • Alignment of entry conditions • Application of new technologies • Application of risk management techniques • Information sharing between border management agencies • Technical assistance and training in visa and border management systems	1997-ongoing
	Develop mechanisms for cooperation.	1998-ongoing
3. Examine the possibility of setting the scope for cooperation at a regional level aimed at streamlining and accelerating arrangements for temporary residency for business people to engage in trade and investment.	Identify possible areas for cooperation.	1998
	Develop mechanisms for cooperation.	1998-ongoing
4. Establish and maintain a dialogue on mobility issues with the business community.	Engage in dialogue with business representatives in member economies, and with ABAC, on impediments to mobility of business people.	Ongoing
	Examine feasibility of implementing ABAC recommendations relating to: • Short-term travel • Business residency	 1997 1997-98
	Encourage feedback from business representatives on utility of APEC Business Travel Handbook.	Ongoing

[1] Announced by APEC Leaders in Osaka, Japan, November 1995. Action agenda objectives listed here pertain only to mobility of business persons. Additional objectives span work by many APEC committees and work groups involved in trade, investment, and other endeavors by APEC member economies.

Source: APEC, Committee on Trade and Investment, "1997 Collective Action Plans Including Annual Report to Ministers," found at APEC Secretariat's Internet address, http://www.apecsec.org.sg/cti/iva2-12, retrieved Mar. 20, 1998.

services in member economies and make such information accessible to business, and identify priority professions for consideration in consultation with the private sector. The GOS also agreed in its CAP to complement work underway by APEC's Human Resources Development Working Group and the WTO in areas such as mutual recognition of professional qualifications.

Spurred by APEC's Business Advisory Council (ABAC)[29] to assist in improving the mobility of business travelers, the CTI oversaw an exchange of information on APEC members' short-term business visa requirements. The information was subsequently published as an APEC Business Travel Handbook.[30] The CTI also agreed to survey APEC economies and publish a similar travel handbook on members' requirements regarding temporary residency of business people, to begin a policy dialogue on regulatory regimes related to the mobility of business people, and to develop mechanisms for regional cooperation that may lead to enhanced mobility.[31] Possible mechanisms include, for example, multiple entry visas,[32] visa waiver arrangements, travel pass schemes, harmonization of entry conditions, and information sharing and systems training between border management agencies.

An APEC business travel card is one such mechanism that could facilitate travel between participating APEC economies. Features of the business travel card include a single application for entry to all participating economies, long-term validity allowing multiple entry (5 years or the life of one's passport), special immigration lanes to speed border processing, and retention of an economy's sovereignty over the entry of individuals.[33] Australia, Korea, and the Philippines implemented the APEC business travel card on a trial basis in 1997. Chile and Hong Kong stated they would participate in 1998, but are not yet fully engaged. The United States has not adopted the APEC travel card, having previously developed the INS Passenger Accelerated Service (INSPASS),[34] in which other economies are invited to participate.[35]

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[29] ABAC is the senior business advisory council to APEC, and is comprised of three senior business persons appointed by APEC Economic Leaders from each APEC member economy. Information on the ABAC may be found at Internet address http://www.apec.org/abac.

[30] The second edition of the handbook, published in December 1997, is electronically available through the APEC home page at Internet address http://www.apec.org.

[31] APEC, CTI, "1997 Collective Action Plans Including Annual Report to Ministers."

[32] Multiple entry visas would be valid for numerous business trips to a single member economy during a prescribed time period.

[33] APEC, "APEC Committees: Mobility of Business People," found at Internet address http://www.apecsec.org.sg/committee/mobility/, retrieved July 15,1998.

[34] The United States introduced INSPASS in 1993. Information on INSPASS may be found at the Internet address of the United States Immigration and Naturalization Service (INS), http://www.ins.usdoj.gov.

[35] Pursuant to 8 U.S.C. 1182, 8 U.S.C. 1201, and 8 U.S.C. 1202, the United States requires a U.S. visa for business travelers, except for nationals of countries exempt from the visa requirements. Currently, the APEC economies exempt from the business visa requirements are Australia, Brunei Darussalam, Canada, Japan, and New Zealand. INSPASS can expedite entry once a U.S. visa has been obtained, if required. The APEC business travel card, however, does

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In June 1998, APEC trade ministers endorsed member economies' collective commitments to grant multiple entry visas to regular, short-term business travelers, at each member's discretion. Additionally, member economies continue to discuss issues pertaining to longer term, although still temporary, business residency, through an informal group of experts on business mobility within the CTI. In this regard, at the CTI ministerial meeting in February 1998, the United States tabled an initiative to help member economies improve service standards for processing applications concerning temporary residency of business persons in the APEC region,[36] based on U.S. L-type visas covering intracompany transferees. L-type visas are for foreign managers, executives, and specialists employed by multinational firms providing services in the United States through a branch, subsidiary, or affiliate. These visas are valid for up to 3 years, but may be extended for up to 4 years for managers and executives and up to 2 years for specialists. The U.S. proposal could prompt members to focus future cooperative action on issues relating to temporary residency.[37]

The early voluntary sectoral trade liberalization initiative approved by APEC Ministers in 1997 may also present opportunities for certain groups of U.S. professionals. For example, engineers may benefit from work contemplated in two of the nine areas selected for immediate action -- energy, and environmental goods and services. As part of the initiative, a work program will seek to identify and remove nontariff measures that impede trade in APEC economies, which could help pave the way for U.S. professional service providers.

North American Free Trade Agreement

The North American Free Trade Agreement (NAFTA) provides a framework intended to ensure that measures applied to members' professional services suppliers do not unnecessarily restrict trade among NAFTA countries.[38] Professional service providers may ultimately be affected by principles and provisions in chapters 12 and 16. Chapter 12 concerns, among other things, licensing and certification of professional service providers from another partner country.[39] Article 1210 of chapter 12 calls for the elimination of regulations that condition professional service licensing or certification on citizenship or

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[35] (...continued)
not meet the U.S. legal requirement of a visa and therefore cannot be considered a visa substitute by the United States. Economies participating in the APEC travel card program consider the card equivalent to, and substitutable for, a visa. Another difference between INSPASS and the APEC business travel card is that the INSPASS system is fully automated, unlike the APEC business travel card. Official of INS, telephone interview with USITC staff, Sept. 15, 1998.

[36] U.S. Department of State telegram, "Request for Assistance in Developing United States APEC Business Mobility Initiative," message reference No. 083448, prepared by U.S. Department of State, Washington, DC, May 8, 1998.

[37] Ibid.

[38] Groundwork toward these steps predated NAFTA and is incorporated in the agreement, through work by various professions under the U.S.-Canada Free Trade Agreement.

[39] North American Free Trade Agreement Between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America (NAFTA), ch. 12: Cross-Border Trade in Services, found at Internet address http://www.sice.oas.org/trade/nafta/chap-12/, retrieved Apr. 24, 1998.

permanent residency. Annex 1210.5 to chapter 12 calls on NAFTA partners to encourage relevant national professional bodies to develop mutually acceptable standards and criteria for licensing and certification of professional service providers and to make recommendations on mutual recognition of credentials. The annex also obligates each NAFTA partner to establish a schedule to begin work on liberalizing licensing procedures for foreign legal consultants and engineers. However, the agreement does not require harmonization of licensing procedures and qualification requirements.[40] Rather, providers are to be afforded the opportunity to prove that their qualifications meet those in the accreditation agreements signed with the other NAFTA members.[41] Chapter 16 provides for the temporary entry of business persons, setting forth parameters pertaining to measures affecting professionals, such as minimum education requirements and alternative credentials for practitioners of particular professions.[42] For example, NAFTA partners may not require labor market tests as a condition for temporary entry of professionals, provided that the professional complies with other existing immigration measures applicable to temporary entry and presents other documentation as required by all NAFTA partners.[43]

Accomplishments and Prospective Activity

As indicated below, experiences in applying NAFTA provisions to individual professional service sectors have varied. Nevertheless, the establishment of work schedules has begun to facilitate mutual recognition and the processes toward liberalizing licensing procedures in certain professions.[44]

> **Engineers**--The engineering profession became the first professional service to agree on a mutual recognition document, signed by national relevant bodies in June 1995.[45] Upon implementation by States and Provinces, the document would ultimately establish the basis for licensing authorities in each country to recognize temporary and permanent licensing of engineers in other partner countries. All Mexican States and Canadian Provinces reportedly are ready to implement the document, but in the United States Texas alone has signed a letter of intent to implement the document.[46]

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[40] Officials of USTR, interviews with USITC staff, Oct. 14, 1997.

[41] Bernard Hoekman and Pierre Sauvé, "Liberalizing Trade in Services," discussion paper No. 243, World Bank, Washington, DC, 1994.

[42] NAFTA, ch. 16: Temporary Entry for Business Persons, found at Internet address http://www.sice.oas.org/trade/nafta/chap-16/, retrieved Sept. 14, 1998.

[43] Documents include proof of citizenship in a NAFTA country and demonstration that the professional will be engaged in the profession upon entry.

[44] U.S. industry representatives, interviews with USITC staff, Apr.-Sept. 1998.

[45] The relevant professional bodies included the United States Council for International Engineering Practice; the Canadian Council of Professional Engineers; and the Mexican Committee for the International Practice of Engineering. Industry representative, telephone interview with USITC staff, Sept. 22, 1998.

[46] Steven T. Schenk, "Letter from the President, National Council of Examiners for Engineering and Surveying," *Licensure Exchange*, vol. 2, No. 4 (Aug. 1998) found at Internet

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Lawyers--In June 1998, representatives of the relevant professional bodies from each NAFTA partner[47] signed joint recommendations for the recognition of foreign legal consultants, currently under consideration by the three governments to determine the agreement's consistency with NAFTA. The recommendations are intended to establish a basis for recognition of foreign legal consultants who would advise on their home country law. The recommendations also include, among other things, the form of association or partnership between lawyers authorized to practice in the home territory and foreign legal consultants.[48]

Architects--Representatives of the architectural profession from partner countries agreed to develop mutually acceptable standards and criteria for recognizing the licensing and certification of architects. The objective is to attain portability of credentials such that qualified North American architects would be licensed to practice anywhere in the partner countries. As a start, a trinational team of architects was formed and visited several universities in an effort to determine the equivalence of education in the three countries. The negotiating group under NAFTA plans to build on the 1994 interrecognition agreement contained in the Architects' Annex of the U.S.-Canada Free Trade Agreement. Under the interrecognition agreement, U.S. or Canadian architects who meet certain requirements for certification of qualifications can use the certificate to prove professional competence to practice in the other country's jurisdiction, if that jurisdiction has agreed to register the other country's qualified applicants. At least 34 U.S. States and 7 Canadian provinces have filed letters to implement the agreement.[49]

Accountants--Initial discussions and information exchanges on education and qualifications among accounting professional bodies in the three countries have occurred for several years. Mexican professional bodies have begun to provide specific information on the preparation of Mexican students to become accountants. The information will be used to determine equivalence of education, experience, and examination relative to that in the United States and Canada.[50] Predating NAFTA activity, U.S. and Canadian accounting representatives signed a framework agreement

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[46] (...continued)
address http://www.ncees.org/licensure_exchange/, retrieved Sept. 22, 1998; and industry representative, telephone interview with USITC staff, Sept. 22, 1998.

[47] The professional bodies included the Federation of Law Societies of Canada, NAFTA Committee; the Mexican Committee on the International Practice of Law; and the American Bar Association, Sections of International Law and Practice and Legal Education and Admissions to the Bar, and its affiliate, the National Conference of Bar Examiners.

[48] Industry representatives, telephone interviews with USITC staff, Sept. 22 and 23, 1998.

[49] Industry representative, interview with USITC staff, Apr. 22, 1998.

[50] Official of USTR, telephone interview with USITC staff, July 1998. 27

on principles for reciprocity in 1991.[51] To date, about 36 U.S. States and 9 Provinces have filed letters of intent to implement the agreement. According to the agreement, U.S. CPAs and Canadian chartered accountants are not required to take the entire professional uniform accountancy examination in the reciprocal jurisdiction, but may substitute an abbreviated examination to demonstrate knowledge of national and local legislation, standards, and practices for the jurisdiction in which licensure is sought.

Others–Surveyors, nurses, dieticians, psychologists, psychiatrists, and veterinarians are among the additional professions engaged in consultations to evaluate each NAFTA country's licensing requirements concerning education, experience, and other parameters important to mutual recognition.

Outlook

Working groups in other regional initiatives and fora, such as the Association of Southeast Asian Nations (ASEAN), the Free Trade Area of the Americas (FTAA), and Mercosur, have reviewed regulatory measures affecting trade in professional services, encouraged efforts to increase mobility among business persons including professionals, or developed principles to assist the professions in gaining cooperation from regulators to speed recognition of foreign practitioners' qualifications. For example, in 1997, ASEAN economic ministers approved a protocol to implement initial commitments to provide one another preferential treatment on services trade under the 1995 ASEAN Framework Agreement on Services. In another example, upcoming FTAA negotiations on services could draw upon a previously compiled inventory of bilateral and multilateral agreements on services trade in the hemisphere and other work on national measures affecting services trade.

Collectively, such activities could provide the basis for significant expansion of international trade in professional services, anticipating the next WTO multilateral trade negotiations on services beginning in 2000. The work described above has begun to address and resolve numerous issues affecting trade in professional services, although developments to date are considered nascent and largely preliminary. From the outset, diversity among regulatory regimes has been evident at the most basic levels, such as the extent to which regulations may be publicly available, clear, based on well defined criteria, and noncontradictory.[52] Moreover, issues of timeliness and predictability of regulatory implementation have arisen. There is concern, for instance, that administrative structures

[51] "Principles for Reciprocity" is a document signed Sept. 16, 1991, and submitted by the American Institute of Certified Public Accountants, the Canadian Institute of Chartered Accountants, and the National Association of State Boards of Accountancy, for consideration by the relevant State and Provincial licensing authorities in the United States and Canada.

[52] Marina Fe B. Durano, "Barriers to Cross-Border Provision of Services within the APEC: Focus on the Movement of Persons," working paper series 96/97, No. 18, APEC Study Center, Institute of Developing Economies, Tokyo, Japan, Mar. 1997, p. 76.

may not be suited for sophisticated regulation and monitoring of compliance.[53] Adding to the complexity of bilateral and multilateral discussions have been differences at subnational levels of government and among national professional bodies with respect to qualifications and other requirements affecting a professional's practice outside the home market. Additionally, national rules with respect to professionals seeking entry into foreign markets have been superimposed on complex issues other than those unique to each profession, such as most-favored-nation treatment, reciprocity, and movement of diverse categories of labor across borders.[54] These elements suggest that recognition and standards for regulation of foreign professional service providers are likely to evolve slowly.■

[53] Ibid.
[54] Ibid., pp. 78-79.

DEREGULATION FOSTERS GLOBALIZATION OF THE ELECTRIC POWER INDUSTRY

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The electric power industry is undergoing major change as governments restructure their regulatory systems to introduce competition, divest government assets, drive down costs, and improve service quality. Since the electric power industry is a major infrastructure service industry, twice the size of the telecommunications industry,[1] these efforts are likely to have profound effects on consumers, investors, and governments. This article examines how restructuring the electric power industry fosters growth in foreign direct investment, encourages the development of global competition among leading firms, and presents new issues that may need to be addressed in a global forum such as the World Trade Organization.

The traditional structure of the electric power industry is characterized by regulated monopolies operating within a designated service region. This market structure primarily resulted from the presence of increasing returns to scale and the belief that electric power is a public good that requires regulation to ensure fair and equitable treatment of all consumers.[2] Under this structure, electric utility companies evolved into large, vertically-integrated entities that provide all of the necessary functions of electricity generation, transmission, and distribution within a given territory.[3] However, regulated monopoly providers have little incentive to reduce prices, improve customer service, or develop new products and services because prices are set by regulatory bodies and customers are captive. Based on evidence that competition fosters price reductions and improved service quality, governments have begun introducing competition into the electric power industry by removing regulatory barriers to new market entrants and by easing control over pricing and operational factors.[4] This restructuring or deregulation process is seen as a means of

[1] Ronald G. Shafer, "Washington Wire," *The Wall Street Journal,* Dec. 8, 1997, p. A1.

[2] The electric power industry experiences increasing returns to scale because high fixed investment costs require the production of a large volume of electricity to reduce the average unit cost, resulting in barriers to entry and the development of "natural" monopolies. Electricity is considered a public good because it produces benefits beyond those delivered to the individual consumer.

[3] Transmission involves the movement of large amounts of electricity across significant distances through a high-voltage grid whereas distribution involves the delivery of lower voltage electricity to the ultimate consumer.

[4] Robert Crandall and Jerry Ellig, "Economic Deregulation and Customer Choice: Lessons for the Electric Industry," Center for Market Processes, Fairfax, VA, p. 8.

31

improving consumer well-being by reducing regulatory costs, aligning prices more closely with costs, improving producer efficiency, and introducing new products and services.[5]

Restructuring Electricity Services in the United States

In the United States, deregulation is in various stages of implementation, with a host of Federal and State initiatives put forward. At the Federal level, the passage of the Public Utility Regulatory Policies Act of 1978 represented the first step toward deregulation (see table 1). Subsequently, considerable progress has been made toward developing a competitive wholesale market for trading large volumes of electric power among utility companies. However, existing Federal legislation still does not provide for a competitive retail market, or the transmission of electricity to final customers. This segment of the market generally falls within the jurisdiction of individual State regulatory bodies. Since the introduction of retail competition in individual States may affect other states and the country as a whole, Members of Congress have introduced several bills intended to establish retail competition in electricity services[6] and, in March 1998, the Clinton administration put forward a proposal.[7] Although the bills vary widely in such matters as a nationwide implementation date, regulatory authority of State and Federal agencies, stranded cost recovery,[8] market power provisions, and environmental issues, eventual restructuring or deregulation of the retail electric power market appears to be likely.[9]

On the State level, retail deregulation initiatives are progressing rapidly, particularly in States like California that have relatively high energy costs.[10] By June 1998, 12 States had passed legislation establishing competitive retail markets, 12 more had legislative orders issued or pending, 23 were investigating legislative options, and only 3 States reported no

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[5] Ibid., p. 6.

[6] Lynne H. Church, "Status of the Debate: The Congressional Debate on Electricity Industry Restructuring" (Electric Power Supply Association: June 23, 1997), presented at the Transmission & Distribution World Magazine 4th Annual Deregulation Conference and Summit Meeting.

[7] The White House, "The Clinton Administration's Comprehensive Electricity Competition Plan," Mar. 25, 1998, found at Internet address http://www.pub.whitehouse.gov, retrieved Sept. 4, 1998

[8] Stranded, or transition, costs are financial losses incurred by utilities as a result of structural changes to the industry. For example, when retail competition is introduced, consumers may purchase electricity from lower-cost providers, leaving the existing higher-priced utility unable to sell its power. As a result, facilities with high generation costs may cease to be economically viable. Other stranded costs include fuel supply costs and nuclear decommissioning costs. EIA, *The Changing Structure of the Electric Power Industry: An Update*, p. 54 and p. 77.

[9] Church.

[10] Due to differences in the availability of resources and regulatory policy, retail prices vary significantly from one State to another. For example, the national average retail price of electricity is 6.9 cents per kilowatthour, but New York consumers pay 11.1 cents while Washington state consumers pay 4.1 cents per kilowatthour Such price disparities impose a disproportionate burden on households and businesses in high-cost regions. EIA, *The Changing Structure of the Electric Power Industry: An Update*, p. 36.

Table 1
Major legislation affecting competition in the electric power industry

Legislation	Content
Public Utility Holding Company Act of 1935 (PUHCA)	Gave the Securities and Exchange Commission authority to break up and regulate trusts that controlled the electric and gas distribution networks. The SEC subsequently broke up interstate holding companies by requiring them to divest holdings until each became a single consolidated system serving a limited geographic region. The business activities of these holding companies were limited to those essential and appropriate for the operation of a single integrated utility. This effectively curtailed wholesale electric power trading and created a vertically integrated, geographically focused market structure.
Public Utility Regulatory Policies Act of 1978 (PURPA), part of the National Energy Act.	Passed in response to the unstable energy environment of the late 1970s, PURPA sought to promote conservation of electric energy. As part of this effort, PURPA created a new class of nonutility generators called small power producers and required utilities to purchase power generated by small power producers as well as qualified cogenerators.[1] This created a wholesale market for independent power producers by allowing both utilities and nonutilities to build, own, and operate power plants for wholesaling electricity in more than one geographic area; removing barriers to entry for smaller energy producers; and requiring electric utilities to buy whatever amount of capacity and energy is offered from any facility meeting the qualifying criteria for a cogenerator or a small power producer using renewable resources.
Energy Policy Act of 1992 (EPACT)	Created a new category of electricity producer called the exempt wholesale generator, and directed the Federal Energy Regulatory Commission (FERC) to open the national electricity transmission system to wholesale suppliers. This represented a further easing of barriers to entry for nonutility generators, enabling the establishment of more independent power producers free from PURPA requirements concerning cogeneration and renewable resources.[2] Such independent power producers may sell electric power at unregulated rates, but utilities are not required to purchase the power. FERC's Orders 888 and 889 implemented the directives of the Act by limiting the market power of entrenched utilities and providing a greater degree of access to transmission facilities nationwide. Under these Orders, all public utilities that transmit electricity in interstate commerce must publicly file nondiscriminatory transmission tariffs; apply open access transmission tariffs for their own new wholesale sales and purchases of electricity; separate the transmission function from generating and marketing functions; and develop and maintain a real-time information system that affords all users access to the same transmission information available to the utility. As a result, wholesale customers, such as rural cooperatives or municipal power companies, can purchase lower cost electric power supplies from generators anywhere in the country.[3]

[1] Independent small power producers are privately owned entities that generate power for their own use and/or for sale to utilities and others. Cogenerators are privately-owned entities that generate power as a byproduct of another production activity. A qualified cogenerator meets certain criteria specified in PURPA that enable it to sell some of the power generated to utilities.

[2] A nonutility is a privately owned entity that generates power for its own use and/or for sale to utilities and others.

[3] Rural electric cooperatives are entities formed and owned by groups of residents in rural areas to supply power to those areas. Municipal power companies are publicly owned utilities that generate or purchase electricity on behalf of a municipality.

Source: Energy Information Administration, *The Changing Structure of the Electric Power Industry: An Update,* Dec. 1996, pp. 21-33.

significant legislative activity (figure 1).[11] California and Massachusetts have acted quickest, allowing consumer choice in early 1998.[12] All States face similar issues (see text box). In general, the State plans call for consumer choice among electricity providers after a transition period of 3 to 5 years with some provisions for the recovery of stranded costs.[13]

U.S. retail energy deregulation: Issues faced at the state level

- Determining whether vertically integrated utilities will be required to unbundle transmission and generation functions, and if full divestiture of assets is necessary;
- Creating a system, such as a power exchange, or an entity, such as an independent system operator, to manage electricity transactions;
- Addressing the problem of stranded cost recovery, where utilities receive some compensation for investments they will not be able to recover in a competitive market;
- Revising universal service requirements that ensure that services are provided to all customers at reasonable rates;
- Addressing environmental or public policy objectives, such as energy conservation; and
- Establishing a schedule for implementation.

Source: EIA, *The Changing Structure of the Electric Power Industry: An Update*, Dec. 1996, p. 69.

Restructuring Abroad

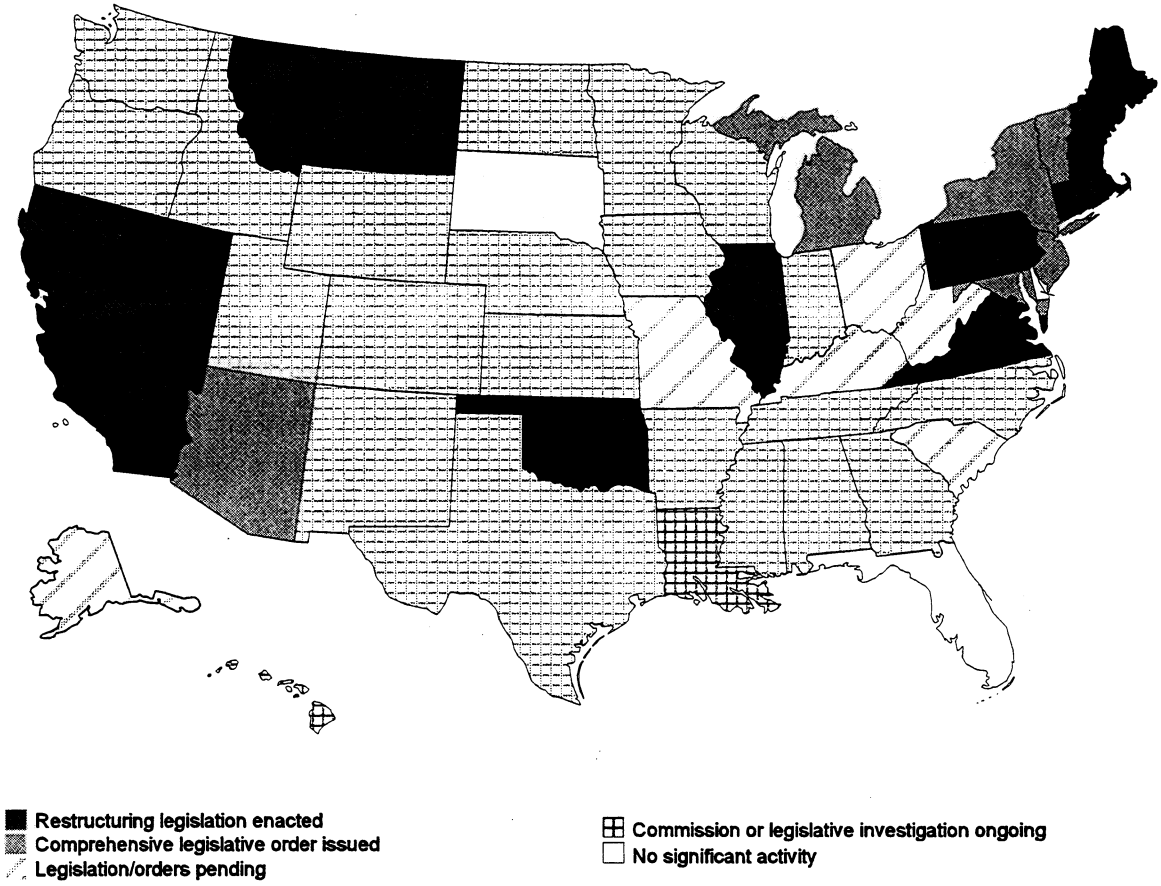
Restructuring the U. S. electric power industry poses many regulatory obstacles, but such initiatives appear to face even greater challenges in foreign markets. The United States enjoys one advantage in shifting to a competitive market, in that the existing system is well developed, with privately owned enterprises able to compete with one another once the new regulatory framework is in place. In many other countries, however, the electricity infrastructure is underdeveloped and/or the government holds greater control over the electric power industry, in some cases owning and operating the entire system. As a result, many countries must create competitors by selling off, or privatizing, state-owned enterprises in addition to developing a competitive regulatory structure.

[11] Ross B. Bell, "Legislative Update: Electric Industry Restructuring," (American Legislative Exchange Council: June 20, 1997), presented at the Transmission & Distribution World Magazine 4th Annual Deregulation Conference and Summit Meeting, June 23, 1997.

[12] Ross Kerber, "Massachusetts to Deregulate Electric Utilities," *Wall Street Journal,* Nov. 20, 1997, p. A4.

[13] Benjamin A. Holden, "Electric-Deregulation Machine Starts to Pick Up Steam," *Wall Street Journal,* July 14, 1997, p. B2.

Figure 1
State electricity services deregulation as of June 1, 1998



Source: Energy Information Administration, Status of Electric Industry Restructuring by State, June 1, 1998.

Latin America

Several Latin American countries have undertaken aggressive reform of their electric power industries in response to increasing evidence that inefficient state-owned, vertically integrated monopolies were responsible for a variety of problems, including power shortages in Argentina and extended periods of power rationing in Colombia.[14] Governments also found that demand for electricity was rising faster than their ability to raise capital to expand capacity, especially while subsidizing rates for the poor. As a result, state-owned companies were draining fiscal resources and contributing to the financial crises encountered across the region.

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[14] Hugh Rudnick, "Pioneering Electricity Reform in South America," *IEEE Spectrum*, Aug. 1996, p. 39.

Chile was the first Latin American country to reorganize its electric power sector. The Chilean Government began developing plans for a competitive electricity market in 1980, which resulted in the 1982 passage of legislation providing for the privatization of all State-owned electricity assets and the development of a competitive power market. The privatization program was successfully implemented during 1986-89,[15] such that presently nearly all transmission, generation, and distribution assets are privately held.[16] The ensuing competition fostered efficiency improvements, price reductions, and improved quality of service.[17] Electric power reforms were subsequently undertaken by Argentina in 1992, by Peru in 1993, by Bolivia and Colombia in 1994, and by Brazil and Venezuela in 1996.[18] The structural reforms implemented by Latin American countries include the following common features (see text box). The market reforms have yielded measurable positive results as capacity has increased, performance of existing units has improved, and electric power prices have been reduced substantially at both the wholesale and retail levels.[19]

Latin American electric power sector: Common features of structural reforms

- Privatization of state-owned assets.
- Unbundling the system into generation, transmission, and distribution functions.
- Allowing competition among generators, but establishing an independent operator that dispatches all electricity centrally.
- Permitting licensed operation of transmission and distribution companies.
- Removing licensing requirements for thermal generation, but retaining hydropower licensing rules.
- Guaranteeing open access to transmission facilities.
- Granting distribution concessions on a periodic basis.
- Adopting marginal pricing techniques.
- Applying penalties to stimulate service improvements – particularly relative to distribution and transmission providers should they fail to provide service.

Source: Hugh Rudnick, "Pioneering Electricity Reform in South America," *IEEE Spectrum*, Aug. 1966, pp. 40-41.

[15] Peter R. Lalor and Hernan Garcia, "Reshaping Power Markets: Lessons from South America," *Electricity Journal,* Vol. 9, No. 2, Mar. 1996, pp. 63-71.

[16] Hugh Rudnick, "Pioneering Electricity Reform in South America," *IEEE Spectrum*, Aug. 1996, p. 43.

[17] Ibid.

[18] Ibid., p. 39.

[19] Peter R. Lalor and Hernan Garcia, "Reshaping Power Markets: Lessons from South America," *Electricity Journal,* Vol. 9, No. 2, Mar. 1996, pp. 63-71.

European Union

The European Union (EU) began considering a single internal electricity market in 1986 to increase efficiency, ensure supply, and attract investment for Member States. In particular, Members recognized that high energy costs could adversely affect industrial competitiveness. For example, in 1996, the cost of electricity in Germany was 33 percent more than in the United States and 50 percent more expensive than in Australia, placing German firms at a cost disadvantage.[20] Another impetus for reform is the Treaty of Rome, which called for the formation of an internal energy market without frontiers by January 1993. Under the Treaty's broad language, any firm should be able to build a power plant and sell electricity in the territory of any Member State.

The first actions taken by the EU consisted of Commission Directives issued in 1990 and 1991 that addressed transmission rules and price transparency for gas and electricity.[21] More significant measures were delayed until December 19, 1996, when the European Commission issued Directive 96/92/EC concerning common rules for the internal market in electricity.[22] Under this directive, Member States are to ensure that the electricity market is open to competition for selected categories of consumers by February 19, 1999. The directive provides for the unbundling of generation, transmission, and distribution functions, although this may take place administratively without forced divestiture from other lines of business. Generators will be permitted to compete openly and need only apply for authorization or submit to a tender process; in either case, the procedures for authorization or receiving a tender must be objective, transparent, and non-discriminatory. Member States must designate transmission and distribution providers that are required to provide access on non-discriminatory terms. Competition will be phased in gradually, beginning with large customers.

In order to comply with the directive, most EU Member States will have to make significant regulatory changes.[23] The current structure of electric power systems varies considerably from one country to another within the EU. Eight countries may be characterized as having public sector ownership while seven have privately-owned systems or a mix of public and private ownership. Full privatization is present only in Belgium and in the United Kingdom. Most Member States have some integration between generation and transmission functions, with the exceptions being Luxembourg, Spain, Portugal, Sweden, and the United Kingdom. Some, including France, Greece, Italy, and Ireland, have fully-integrated providers of

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[20] A.M. Klom, "Electricity Deregulation in the European Union," *European Commission,* Autumn 1996, found at Internet address http://europa.eu.int, retrieved on Oct. 29, 1997.

[21] Directives 90/547/EEC, OJ L 313, 13.11.90; 91/296/EEC/, OJ L 147, 12.06.91; and Directive 90/377/EEC, OJ L 185, 17.07.90.

[22] Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity, *Official Journal of the European Communities,* No. L 27/20, Jan. 30, 1997.

[23] Member States must develop and implement any necessary legislation and regulations to comply with the Directive by February 19, 1999, although due to "technical characteristics" of their electricity systems, Belgium and Ireland have 1 additional year and Greece has 2 extra years to implement the necessary policies.

generation, transmission, and distribution services; while others, such as Belgium, Denmark, and the Netherlands, have extensive cross-ownership among independent power companies so that the system functions as if it were actually vertically integrated.[24]

Asia and the Pacific

Within the Asia/Pacific region, Australia, New Zealand, and Japan appear to be most actively restructuring their electricity markets. In Australia, regulatory reforms began in 1992 and remain underway in all States.[25] The reform objectives were intended to support real economic growth and to improve consumer welfare by enhancing efficiency, lowering prices, and increasing consumer choice. The State of Victoria, which accounts for 18 percent of Australia's generating capacity, has been most ambitious in moving toward competition. The previously integrated electricity system was separated into generation, transmission, and distribution segments, with generation and distribution functions being privatized. The State Government manages the Victoria Power Exchange, which provides central coordination and control, and Power Net Victoria runs the transmission grid. Some benefits of the deregulation and privatization have already been experienced in Victoria, where electricity prices have dropped by 7 percent over the past 5 years and productivity per worker in the electric power sector has increased by 128 percent.

New Zealand has similar plans to increase competition in the electricity market, although political differences over privatizing state assets may lead to slower or more circumspect change. Under a December 1996 agreement between the National and the New Zealand First parties, the government is obliged to prevent certain strategic assets from being privatized. However, this does not appear to apply to the planned break-up of the State-owned Electricity Corporation of New Zealand, scheduled for April 1999.[26] More electric power assets may be privatized in the future, as the Government announced in its June 1997 budget statement that other "non-strategic" assets may be privatized on a case-by-case basis.[27]

In Japan, energy sector deregulation began in 1995 with the passage of a law permitting non-utility firms to sell electric power.[28] Whereas 10 power utilities had previously controlled the market, the 1995 law allows for competition in the wholesale market, and for entry of gas and oil companies into the electricity generation business. Actual implementation of the law appears to be proceeding slowly. In June 1997, Suwa Energy Service became the first

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[24] Klom.

[25] Kenneth L. Norton and Noela Cain, "Progressive Change," *Independent Energy,* July/Aug. 1996, p. 27.

[26] U.S. Department of State cable, "Wellington 000883 – New Zealand: 1997 Investment Climate Statement," July 23, 1997, and Electricity Corporation of New Zealand, "Reform Process Moves up a Gear," found at Internet address http://www.ecnz.co.nz, retrieved Aug. 25, 1998.

[27] Ibid.

[28] Nikkei America, "Japan's Utilities Gear up for Full Competition," Oct. 27, 1997, found at Internet address http://www.newspage.com, retrieved on Oct. 27, 1997.

non-utility to receive authorization to sell electricity.[29] Other firms considering entering the market are East Japan Railway Co. and Toyota Motor Corp. While deregulation appears off to a slow start, pressure is expected to build as relatively high energy costs may be weakening the competitive position of Japanese firms. A study released in November 1997 by the Ministry of International Trade and Industry (MITI) showed that electricity supply costs in Japan were 120 percent higher than those in the United States.[30] The distribution component of this cost was more than five times greater than U.S. distribution costs. In response to this situation, MITI reportedly is developing further reform measures intended to increase competition from non-utility businesses and lower electricity prices.[31]

Elsewhere in Asia and the Pacific region, while there are few indications that fully competitive markets are being developed, enormous energy needs are prompting policy changes that permit foreign ownership of power generation facilities. In China, demand has quadrupled, leading to a 20-percent shortfall of supply.[32] Investment requirements of $140-250 billion during 1993-2010 are 14 percent of total projected world investment in the electricity sector. In Indonesia, electricity consumption is growing by 10 percent while production growth is only 6 percent. India, Korea, Malaysia, and the Philippines face similar scenarios of high demand and inadequate domestic sources of capital, prompting efforts to increase foreign investment in their electric power industries.

Despite the great need for foreign investment, however, these countries appear to be willing to accept foreign investment only in the power generation segment of the market, and even then this investment is often subject to official limitations. While policies generally have liberalized restrictions on independent power producers to encourage power plant construction, domestic regulations, such as a tariff structure that limits returns on investment, often pose barriers to foreign investment.[33] For example, China is reforming the electric law and investment policy by removing the official cap on return on investment, but returns greater than 18 percent are deemed "unrealistic."[34] In the Philippines, although the government has widened opportunities for private-sector participation by amending the "build, operate, transfer law" and opening power generation to foreign investment, foreign ownership is limited to 40 percent.[35] Such restrictive policies appear to be falling out of

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[29] "Miti Approves First Non-utility Power Supplier," Nikkei English News, June 26, 1997, found at Internet address http://www.newspage.com, retrieved on June 30, 1997.

[30] "Study Shows Gaping Difference in U.S./Japan Power Costs," Tokyo Financial Wire, Nov. 3, 1997, found at Internet address http://www.newspage.com, retrieved on Nov. 12, 1997.

[31] "MITI Chief Vows Efforts to Cut Electricity Charges," Kyodo, Nov. 12, 1997, found at Internet address http://www.newspage.com, retrieved on Nov. 13, 1997.

[32] David South, Energy Resources International, "Electric Power Outlook: China," presentation at "Energy Trade and Investment in Asia: Meeting Competitive Challenges," 1997 Annual meeting of the Washington Energy Policy Seminar, Apr. 10, 1997.

[33] Deanna Okun, Office of Sen. Murkowski, presentation at "Energy Trade and Investment in Asia: Meeting Competitive Challenges," 1997 Annual meeting of the Washington Energy Policy Seminar, Apr. 10, 1997.

[34] Ibid.

[35] Victor Gosiengfiao, Embassy of the Philippines, presentation at "Energy Trade and Investment in Asia: Meeting Competitive Challenges," 1997 Annual meeting of the Washington

(continued...)

favor in some countries as governments have learned that they may deter foreign investment. Notably, Korea lifted its 50-percent foreign equity ceiling in May 1998 to allow 100-percent foreign ownership of independent power generators for the first time.[36]

Although Asian countries have not fully embraced the concept of competition in the electric power industry with full participation by foreign firms, the ongoing economic crisis as well as discussions within the Asia-Pacific Economic Cooperation (APEC) may foster movement toward competition. As fiscal budgets have been seriously undermined by currency devaluations and slower economic growth, government-funded power projects could be jeopardized. This could lead Asian governments to further encourage the development of privately-financed independent power producers and perhaps foster the introduction of competition. Meanwhile, APEC members have selected energy as a priority sector for liberalization. While discussions thus far have focused predominantly on liberalizing trade in energy commodities and equipment, APEC members are working to develop a framework for liberalizing energy services as well.

International Trade and Investment Implications

International trade in the electric power industry may take place either as cross-border imports and exports of electrical energy, or as sales and purchases through foreign affiliates of electric power companies. Major changes in market structure and dynamics brought about through privatization and deregulation are likely to affect patterns of cross-border trade and foreign direct investment. The following examines the nature of trade and investment in the electric power industry and how regulatory reform, in conjunction with the financial and strategic objectives of individual corporations, is creating a more global industry. The discussion addresses some of the new international issues created by this development along with some of the obstacles to further growth in sector trade and investment, and suggests that multilateral organizations such as the World Trade Organization may have a role in promoting growth in trade and investment in the electric power industry.

Cross-Border Trade

The simplest form of trade in the electric power industry involves sales of electrical energy across national borders, which is classified as merchandise trade in the national balance of payments. Due to technical constraints that limit the transmission of electric power over large distances and make large-scale storage of electricity impossible, these transactions typically occur only between contiguous regions (although in the summer of 1997, a Canadian company sold power to Baja, Mexico).[37] In 1996, U.S. exports and imports of electrical energy amounted to $97 million and $830 million, respectively, with Mexico

[35] (...continued)
Energy Policy Seminar, Apr. 10, 1997.

[36] USDOC, International Market Insight, "Korea: Liberalization of Power Industry," May 13, 1998, found at Internet address http://www.stat-usa.gov, retrieved May 18, 1998.

[37] Reuters, "Powerex, Sdg&e to Supply Baja, Mexico, with Power," Apr. 7, 1997, found at Internet address http://www.newspage.com, retrieved on Apr. 8, 1997.

accounting for 55 percent of U.S. exports and Canada accounting for 95 percent of U.S. imports.[38] U.S. international trade in electrical energy had been relatively small until the 1970s, when rising oil prices made Canadian hydroelectric energy less-expensive than oil-fired generation in the United States, prompting a substantial increase in U.S. imports from Canada.[39] The level of U.S. imports has remained relatively high since that time, except during 1988-92 when Canada imported power from the United States to compensate for short-term electricity shortages.[40]

Restructuring of the U.S. electric power industry is likely to encourage growth of cross-border imports of electrical energy. Canadian companies such as Hydro-Quebec and Ontario Hydro presently have excess generation capacity for their home regions and sell some of the surplus to selected geographic regions in the United States, such as New York and New England in the case of Hydro-Quebec. However, U.S. market restructuring could enable foreign companies to sell their electric power anywhere in the United States, considerably expanding the size of the available market. Consequently, foreign companies that are able to generate electricity at lower cost than U.S. firms will be very competitive in a new market-based pricing system. The likely result will be a significant increase in U.S. imports of electric power from Canada. Canadian companies are already beginning to position themselves to participate more actively in the U.S. market. For example, after receiving permission to sell electricity in the United States at competitive market prices (i.e., unregulated prices) in early 1998,[41] Hydro-Quebec announced plans to open two offices in the United States, with one selling electrical energy and the other managing Hydro-Quebec's existing U.S. affiliate activities.

Foreign Direct Investment and Affiliate Trade

While deregulation is likely to increase trade in electrical energy between the United States and its neighbors, the technical constraints on transporting electricity impose an upward boundary on the growth of cross-border sales. By contrast, there are no inherent upper limits on the growth of sales through foreign-based affiliates. The Hydro-Quebec example illustrates how restructuring may foster foreign direct investment. By opening new offices in the United States and increasing the activities of its existing affiliates, Hydro-Quebec has invested to become a more active player in the U.S. domestic market. Such investment is likely to increase the overall sales revenue earned by Hydro-Quebec, thereby enhancing shareholder value, while also supporting U.S. employment, improving the competitive environment, and perhaps enhancing service quality.

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[38] Data for 1996 are the most recent available. U.S. Department of Energy, Office of Fossil Energy, Office of Coal and Energy Systems, "Electricity Transactions Across International Borders 1996," found at Internet address http://www.fe.doe.gov/ retrieved on June 30, 1998.

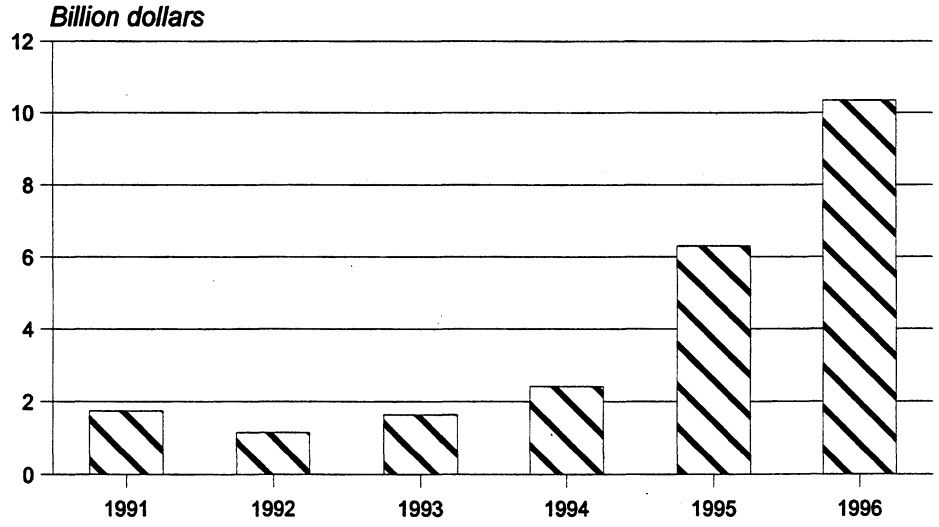
[39] Ibid.

[40] U.S. exports were principally to Ontario Hydro, which encountered shortages during this time period due to drought, unanticipated load growth, outages at several nuclear generating units, and derating of some coal-fired power plants due to restrictions on air emissions. Ibid.

[41] PR Newswire, "Hydro-quebec to Open Two Business Offices in the U.S.," found at Internet address http://www.newspage.com, retrieved on May 21, 1998. 41

The restructuring of electric power industries in various countries has also created new opportunities for U.S. firms to invest internationally. In recent years, U.S. direct investment in foreign electric power industries has grown enormously as U.S. electric power companies made a substantial number of major international acquisitions or investments during the mid-1990s (see annex A for a table of representative international electric power investments of U.S. companies). Although official data does not separately identify U.S. investment abroad in the electric power sector from investment in gas and sanitary services, the 107-percent annual increase in U.S. foreign direct investment in this broader category during 1994-96 is principally explained by the acquisition of foreign affiliates by U.S. electric power companies (figure 2).

Figure 2
U.S. direct investment abroad in electric, gas, and sanitary services, 1991-96



Source: U.S. Department of Commerce, *Survey of Current Business*, Sept. 1997, p. 147.

The largest U.S. investment flows have gone to the United Kingdom, followed by flows to Australia. After a U.K. ban on foreign takeovers was lifted in 1995, U.S. investment capital increased to the extent that 8 of the 12 U.K. regional electric companies had been acquired or were participating in merger negotiations by 1998.[42] U.S. firms that have figured prominently in these and some ongoing acquisitions include American Electric Power, CalEnergy, Cinergy, CSW, Dominion Resources, Entergy, Pacificorp, the Southern Company, and Texas Utilities. Collectively, U.S. firms acquired control of more than $20 billion in U.K. electric power assets during a 2-year period. Many of these same firms participated in a number of similar acquisitions that took place in Australia where privatization of generation assets began with the sale of 51 percent of Loy Yang-B Power Station to Edison Mission Energy in 1994 for $1.9 billion. Subsequently, five Australian

[42] James P. Miller and Daniel Pearl, "CalEnergy Claims Control of U.K. Utility," *Wall Street Journal,* Dec. 26, 1996, p. A3.

electric power distribution companies have been sold to U.S. companies or U.S.-led investor groups.[43]

Although investments by U.S. firms may be the most visible, foreign electricity companies are also active internationally. For example, PowerGen of the United Kingdom is negotiating to merge with Houston Industries of Texas,[44] while in South America, two Chilean companies, Enersis and Chilgener, own more installed capacity outside of the country than within Chile.[45] Operating through the Endesis joint venture with Enersis, Spain's Endesa plans to participate in the privatizations taking place in Brazil, Argentina, Colombia, Venezuela, and Peru, with the ambition of becoming the leading Latin American firm in all sectors (generation, transmission, and distribution).[46] Other European firms pursuing international investment principally in Asia and Latin America include Electricité de France, National Power (United Kingdom), Union Fenosa (Spain), and ESB (Ireland).[47]

Factors Influencing Growth in Foreign Direct Investment

Regulatory Reform

Part of the reason for such strong growth in U.S. direct investment abroad in the electric power sector is the expanding volume and range of investment opportunities. Policy changes permitting foreign investment in the electric power sector have increased the number of projects in which U.S. firms can participate, while regulatory changes favoring privatization and segmentation of the industry now permit foreign firms to invest in the transmission and distribution segments in addition to the generation sector. Developing countries continue to attract significant levels of foreign direct investment as they endeavor to meet rapid demand growth with limited financial and technical resources.[48] However, the largest U.S. investments appear to be purchases of electricity distribution service firms in highly developed markets. Such acquisitions require large initial capital investments, significant ongoing investments in human resources, and may also entail additional regulatory complexities. However, the distribution services sector is described as a growth business that provides immediate cash flow and can expand, attract new customers, and

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[43] Norton and Cain, p. 28.

[44] Kathryn Kranhold, "Yank Utilities' New U.K. Units Fail to Light up the Sky," *The Wall Street Journal*, May 20, 1998, p. B4.

[45] Rudnick, p. 44.

[46] "Latin American Electricity, Dual Voltage," Economist Intelligence Unit, Aug. 25, 1997, found at Internet address http://newspage.individual.com, retrieved on Aug. 26, 1997.

[47] Ibid.

[48] In 1996, 122 new independent power projects closed financing, 38 each in Asia and Latin America, 24 in Europe, 21 in North America, and 1 in the Middle East. Often these investments take the form of build, operate, transfer arrangements, or independent power projects that develop generation facilities to sell electricity to the state-owned power monopoly. Investment in independent power projects is further supported by technological advances that enable the development of new, small power plants with costs that are competitive with larger generation facilities. Alice Yeung, "New Power," *Infrastructure Finance,* Apr. 1997, pp. 43-44, and Rudnick, p.40.

offer service improvements. In contrast, investing in generation facilities usually requires a lengthy construction period to build a power plant that has a fixed production capacity.[49] Moreover, distribution services are also relatively lucrative, with profitability often exceeding 20 percent as compared with returns of 15 percent for generation.[50]

In addition to U.S. direct investment in distribution assets, U.S. electric companies appear to be increasing their level of participation in a broad range of electricity activities abroad. For example, CMS Energy and FondElec Group have joined together to establish a growth fund that invests in electric and gas distribution systems in Latin America.[51] CMS provides technical advice and assistance while FondElec Group manages the financing. CMS is also participating in the Inter-American Investment Corp., which is jointly owned by an arm of the Inter-American Development Bank, a major Japanese trading company, and a European Insurance firm. Initial investments include a large minority stake in a privately-owned Brazilian electric utility and an interest in the controlling shareholder of a Colombian utility. Enron is another major U.S. company pursuing a broad array of energy-related ventures. For example, in 1997, Enron won a bid to supply Brazil with 1,000 megawatts of capacity from generators located in Argentina under a 20-year power purchase agreement. Under the agreement, Enron will also construct transmission lines and build a conversion station, interconnecting Argentina and Brazil's electricity systems for the first time.[52]

Corporate Incentives

In creating new opportunities to invest internationally, regulatory reform also has produced financial and strategic incentives for electric power companies to pursue international expansion. Financially, U.S. investors have pursued foreign acquisitions to attain immediate gains in consolidated earnings, to diversify their sources of income, or to receive high returns on investment by turning around a struggling enterprise. For example, CalEnergy's acquisition of Northern Electric, a strong regional electric company in the United Kingdom, was justified by management on the basis of projected growth in revenues and profits.[53] With respect to income diversification, the changing competitive structure in the mature and slowly growing U.S. market reportedly is likely to apply downward pressure on profit margins. As a result, some U.S. firms may find it prudent to seek out alternative sources of revenue by participating in foreign markets. As for turnaround projects, one example is the partnership between AES and Electricité de France to purchase controlling interest in Light SA, the state-owned power company of Rio de Janeiro, Brazil, which was not performing well. In 1996, these companies acquired Light for $1.7 billion, equaling $340 per share.

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[49] Deepak Gopinath, "Power to the Customer," *Infrastructure Finance,* Apr. 1997, p. 47.

[50] Ibid., pp. 45-6

[51] "Cms Energy and Fondelec Announce Formation of Essential Services Growth Fund for Latin America," PR Newswire, Oct. 3, 1997.

[52] "Enron Named Successful Bidder to Provide 1000 Megawatts of Power from Argentina to Brazil," PR Newswire, Oct. 2, 1997, found at Internet address http://newspage.individual.com, retrieved on Oct. 3, 1997.

[53] James P. Miller and Daniel Pearl, "CalEnergy Claims Control of U.K. Utility," *The Wall Street Journal,* Dec. 26, 1996, p. A3. These revenues may not have been realized due to the imposition of a windfall tax.

By 1997, new management succeeded in making the company profitable, bringing corporate value to $440 per share and increasing the value of the initial investment by nearly 30 percent in one year.[54]

Strategic reasons for U.S. direct investment in the electricity sector are also compelling. Because the process of deregulation is further advanced in the United Kingdom, Australia, and parts of South America than in the United States, U.S. companies often see acquisitions in these markets as a means of learning how to operate in a deregulated environment. Another strategic factor is that, as deregulation spreads through Europe, Latin America, and the Asia/Pacific region, establishing an early foothold may provide an effective platform for future acquisitions or expansion.[55] For example, the Southern Company became the first U.S. electric power company to enter the German market (the second largest utility market after the United States) by leading the winning consortium to take over Berlin's power company, Berliner Kraft und Licht (Bewag), at a price of $1.6 billion.[56] Southern invested $830 million to acquire 26 percent of the privatized company and it expects the venture to be immediately profitable. In addition to the revenue gain, however, this investment is strategic because Bewag has access to transmission lines connecting Eastern Europe, which could facilitate Southern's expansion into those markets.

New Risks and Potential Conflicts

The foregoing illustrates how the electric power industry is becoming increasingly global in scope. With this globalization comes the rewards of improved efficiency and service, which benefit consumers and the economy as a whole. Meanwhile, service providers benefit by expanding their markets and increasing revenue, which improves shareholder value. However, globalization of the industry also brings risks. In most cases, U.S. investments in the United Kingdom have not performed as well as projected, in large part because the Blair Government imposed a higher windfall tax on utilities than anticipated, while government regulators mandated lower electricity rates than expected.[57] Meanwhile, U.S. investments in Southeast Asia have been affected by the regional financial crisis, and investments in India and Pakistan have been threatened due to the imposition of sanctions in response to their nuclear testing activities.[58]

In addition to these commercial and political risks, U.S. firms also may be subject to discriminatory treatment by foreign governments when operating abroad. In ongoing

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[54] Jonathan Friedland, "Brazilian Utility Deals Lose Some Dazzle," *Wall Street Journal*, May 13, 1997, p. A16, and Deepak Gopinath, "Power to the Customer," *Infrastructure Finance*, Apr. 1997, p. 47.

[55] James P. Miller and Daniel Pearl, "CalEnergy Claims Control of U.K. Utility," *The Wall Street Journal,* Dec. 26, 1996, p. A3.

[56] Matthew C. Quinn, "Southern Co., Partners Approved to Buy Berlin Utility for $1.6 Billion," *Atlanta Journal and Constitution,* Sept. 24, 1997, found at Internet address http://www.retailenergy.com, retrieved on Sept. 24, 1997.

[57] Kranhold, p. B4.

[58] The Associated Press, "Experts: India Sanctions May Fail," June 19, 1998, found at Internet address http://www.usaengage.org/news/, retrieved Aug. 25, 1998.

research on regulatory reform being conducted by the Organization for Economic Cooperation and Development (OECD), the electric power industry appears to be among the sectors least open to participation by foreign firms due to poor regulatory transparency and the presence of unnecessary restrictions.[59] For example, many countries force foreign firms to partner with local, favored companies by restricting the level of foreign ownership or imposing nationality requirements on senior management or boards of directors.[60] While partnerships with local firms may offer foreign firms access to local expertise, forced partnerships may also present management conflicts and impede performance. Governments also may discriminate against foreign firms by according market access subject to the findings of an economic needs test or a case-by-case approval process, the criteria for which may not be transparent or fair. In addition, local judicial systems, which may not be efficient, effective, and unbiased, may present difficulties for foreign firms in the event of a legal dispute.

The globalization of the electric power industry may bring about conflicts between governments as well. For example, increased participation by foreign companies in the U.S. electric power market may raise some issues concerning monopoly revenues.[61] Specifically, there may be concern that if foreign companies enjoy a monopoly position in their home territory, they may be able to use monopoly earnings to subsidize expansion into a foreign market either by funding acquisitions or supporting lower rates. Another area of potential conflict involves provisions to guarantee open access to transmission facilities. Since open access to the transmission grid is perceived as essential to the development of a competitive wholesale electric power market, present U.S. regulations require all companies that own transmission assets and seek to sell electric power beyond their region to demonstrate that they accord reciprocal access to their transmission grid. These regulations apply equally to domestic and foreign firms. Thus for Hydro-Quebec to receive permission to sell its power competitively in the United States, it had to demonstrate that it had made provisions to permit U.S. companies to transmit power through its grid in Canada. However, U.S. regulations do not require that there must be a competitive market in place. As a result, a U.S. company may technically be able to transmit electric power throughout Quebec using Hydro-Quebec's grid, which would satisfy U.S. regulations, but still be unable to sell power in Canada. The lack of a parallel market structure could result in industry complaints of unfair competition.

Another intergovernmental issue concerns extra-territoriality, whereby a country attempts to impose its laws beyond their legal jurisdiction. Any unilateral efforts to resolve disparities between market conditions could raise questions concerning extra-territoriality. Even the requirement that foreign companies provide open access to transmission facilities

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[59] Correspondence with Organization for Economic Cooperation and Development (OECD) staff concerning preliminary research findings, Aug. 10, 1998.

[60] This is reflected by the fact that firms with U.S. majority ownership account for less than 25 percent of all sales of electric, gas, and sanitary services through foreign affiliates of U.S. firms, suggesting that in most cases U.S. firms are limited from taking a majority position. USDOC, BEA, *U.S. Direct Investment Abroad, Preliminary 1995 estimates,* Oct. 1997, table III.A 2.

[61] Industry and Government representatives, telephone interviews by USITC staff, Oct. 29, 1997, and June 30, 1998.

as a condition for U.S. market access may be interpreted as the application of U.S. law outside the territory of the United States.[62] Issues such as these are likely to become more apparent as the interrelationships of companies and countries deepen.

Potential Role for the World Trade Organization

A multilateral forum such as the World Trade Organization (WTO) could address some of the new issues presented by a more global electric power industry. One of the major objectives of the WTO is to serve as a means by which countries can coordinate regulatory policies and resolve disagreements in order to facilitate growth in international trade and investment. Since the electric power industry is a major infrastructure service industry, one approach could be to extend the principles contained in the General Agreement on Trade in Services (GATS) to embrace the electric power industry. The GATS, which entered into force in 1995, established a framework of principles designed to encourage global competition. These principles include the obligation of signatory countries to accord foreign service providers market access and national treatment[63] on a most-favored-nation[64] basis. In addition, signatories to the GATS are obligated to ensure regulatory transparency by publishing all relevant measures and responding promptly to requests for specific information. The GATS also provides recourse to a dispute settlement mechanism in addition to countries' domestic legal systems. Further, in its agreement on basic telecommunications services, for example, which took effect on February 5, 1998, the GATS further elicits from signatories a commitment to uphold a framework of procompetitive regulatory principles that include:

- Safeguards against anticompetitive practices, including cross-subsidization, among monopolies or other firms with market power;
- Timely and cost-based interconnection access under nondiscriminatory terms, conditions, rates, and quality;
- Transparent and nondiscriminatory universal service requirements[65] that are no more burdensome than necessary;
- Transparent and publicly available licensing criteria and reasons for denial;
- Independence of regulators and suppliers of basic telecommunication services; and

[62] Industry and U.S. government representatives, telephone interviews by USITC staff, Oct. 29-30, 1997.

[63] National treatment means that foreign firms are accorded the same rights and obligations as domestic firms.

[64] Most-favored-nation status accords to one trading partner terms and conditions of treatment that are no less favorable than those accorded to any other trading partner.

[65] Universal service requirements generally specify that every citizen should have access to basic telecommunication services at affordable prices.

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- Objective, timely, transparent, and nondiscriminatory allocation of scarce resources, including frequencies, numbers, and rights of way.[66]

Thus this agreement may offer a precedent for the development of a framework of principles for the electric power industry, which confronts similar issues related to the practices of monopolies, open access to networks, transparency of regulations, independence of regulators and transmission system operators, and allocation of scarce resources like transmission capacity.

To a limited extent, the GATS already applies to some electric power services, as "services incidental to energy distribution" are technically included within the scope of the agreement. However, the definition of those services actually covered is unclear, and only eight countries, including the United States, made specific binding commitments to accord market access and national treatment to foreign energy distribution service providers (annex B). As the WTO moves toward launching a new round of services trade negotiations by the year 2000, the electric power industry may be a strong candidate for more thorough treatment, such as broadening the definition of relevant services and enlisting binding commitments from more WTO members.

Conclusion

The electric power industry is undergoing major change as governments restructure their regulatory systems to introduce competition, divest government assets, drive down costs, and improve service quality. For the United States, this restructuring is likely to enhance the competitiveness of imported electricity from Canada, resulting in modest growth of cross-border trade of electric power. More significantly, deregulation and privatization programs are creating private investment opportunities around the world while the introduction of competition is driving a number of major corporations to seek out acquisitions as additional sources of revenue growth. The result is strong growth of foreign direct investment in the electric power industry. As the restructuring process appears to have only just begun and global demand for electric power is expected to increase significantly, this investment growth pattern is likely to continue. But as the industry becomes more global, new problems and issues are also likely to arise that may best be addressed in a global forum like the WTO. Since the WTO agreement on basic telecommunications offers a precedent for grappling with such issues, the upcoming round of negotiations to liberalize trade and investment in service industries may present an opportunity to extend coverage of WTO principles to the electric power industry.

[66] WTO, Group on Basic Telecommunications, Reference Paper, found at Internet address http://www.wto.org/, retrieved Feb. 20, 1997. For a more detailed discussion of the WTO Agreement on basic telecommunications, see USITC, *Recent Trends in U.S. Services Trade, 1998 Annual Report*, publication 3105, May 1998.

Annex A
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
AEP Resources			
China	1996	172	Purchased 70 percent interest in Nanyang General Light Electric Company, which is building two 125 MW generation facilities.
United Kingdom	1997	1,200	Holds 50 percent of Yorkshire Electricity Group, a regional electric company, in partnership with New Century Energies.
AES			
Argentina	1997	842	Acquired 60 percent of Eden and Edes, and 90 percent of Edelap, all of which are electric power distribution companies. Generation holdings include 100 percent of the Quebrada hydroelectric plant; 98 percent of the Cabra Corral, El Tunal, and Ullum hydro-electric facilities; 98 percent of the Sarmiento gas-fired facility; 69 percent of the San Nicolas coal/oil/gas-fired facility; and 67 percent of the Parana gas-fired plant under construction.
Australia	1998	(1)	Holds 100 percent of the Mt. Stuart kerosene generation plant under construction.
Brazil	1997	1,100	Acquired option to buy 3.6 percent of Companhia Energetica de Minas Gerais (CEMIG) in partnership with Southern and others. CEMIG, in Belo Horizonte, serves the state of Minas Gerais in southern Brazil as a fully integrated utility. The consortium acquired 33 percent of voting shares, which represents a 14.4 percent "economic interest."
	1997	130	Won bid to acquire 91 percent of Companhia Centro-Oeste de Distribuicao de Energia Eletrica, an electric distribution company in the state of Rio Grande do Sul.
	1997	(1)	Increased its ownership position in Light Servicos de Eletricidade, initially acquired in 1996, to 13.75 percent. Light provides distribution services and also owns the Fontes Nova, Ilha dos Pombos, Nilo Pecanha, and Pereira Passos hydroelectric facilities.
	1998	(1)	Holds 100 percent of the Uruguaiana gas-fired generation facility presently under construction.
	1998	(1)	Acquired 10 percent of Electropaulo, a distribution company serving the Sao Paulo region.
Canada	(1)	(1)	Acquired 50 percent of the Kingston gas generation plant.
China	(1)	(1)	Holds 25 percent of joint venture to build, own, and operate China's largest thermal power plant, valued at $1.6 billion. Holds 51 percent of Xiangci-Cili hydroelectric facility, 25 percent of Yangchun Fuyang and Wuhu generation facilities, and 55 percent of Wuxi generation facility. Also holds 70 percent of the Fuling Aixi (under construction) and Jiaozou coal generation facilities; 35 percent of the Chengdu Lotus City gas generation facility; 70 percent of Hefei oil generation plant (under construction); and 25 percent of the Yangheng coal generation plant (under construction).
Dominican Republic	(1)	(1)	Acquired 100 percent of the Los Mina oil generation plant.

Annex A—*Continued*
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
AES—*Continued*			
El Salvador	(1)	(1)	Acquired 64 percent of the CLESA distribution company.
Hungary	1996	(1)	Acquired three thermal generation facilities. Holds 65 percent of Borsod, and 96 percent of Tisa II and Tiszapalkonya plants.
Kazakstan	1996	(1)	Acquired 70 percent of Ekibastuz Gres-1 coal generation facility and 85 percent of 6 Tau P generation plants.
Mexico	1998	(1)	Holds 55 percent of the Merida III gas generation plant under construction.
Northern Ireland	(1)	(1)	Holds 47 percent of Kilroot and Belfast West, two thermal generation facilities.
Pakistan	(1)	(1)	Holds 90 percent of Lal Pir and PakGen, two oil generation facilities.
United Kingdom	(1)	(1)	Holds 25 percent of Medway (gas generation), 100 percent of Barry (gas generation -- under construction), and 100 percent of Indian Queens (oil generation).
CalEnergy			
Indonesia	1996	(1)	Entered into the Dieng geothermal project under a build, own, operate, and transfer agreement. CalEnergy holds 94 percent equity in the $400 million project. In 1997, entered into two additional geothermal projects at Patuka (88 percent interest) and Bali (60 percent interest), both of which are structured under build, own, operate, and transfer agreements.
Philippines	1994	(1)	Entered into three geothermal projects at Upper Mahiao, Malitbog, Mahanagdong. A fourth project at Alto Peak is in early development. In 1995, CalEnergy closed financing for the Casecnan combined irrigation and hydroelectric power generation project, also a build, own, operate, transfer project.
United Kingdom	1996	1,200	Acquired control of Northern Electric PLC, one of the 12 regional electric companies, through a hostile takeover.
Cinergy			
United Kingdom	1996	1,400	Acquired 50 percent of Midlands, a regional electric company, in partnership with GPU.
CMS			
Argentina	1990-95	700	Acquired investment positions in five power plants, one distribution company, gas pipelines and underground gas storage facilities.
	1995	150	Acquired 39 percent interest in a project to construct a generation facility in partnership with Empresa de Energia y Vapor that will operate under an agreement with YPF S.A., Argentina's largest oil company, to supply electricity and steam from a 150 Mw natural gas-fueled plant. CMS Generation will serve as plant operator. Provided financing for the project.
	1996	160	Acquired 90 percent of the electricity distribution firm Edeer.

Annex A—*Continued*
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
CMS—*Continued*			
Chile	(1)	914	Partner with Endesa to build generating stations in the northern copper mining area.
India	1995	20	Increased ownership level to 25 percent interest in an ongoing project to develop a 235 Mw gas/naphtha fired plant in the state of Andhra Pradesh. GVK Industries is negotiating to sell all of its output to the state electric company under a 30-year power purchase agreement.
Jamaica	1995	153	Acquired HYDRA-CO which included 224 Mw of net generating capacity and shared construction management responsibility for a 60 Mw diesel-fueled plant under construction in Jamaica, scheduled to go into service in the fourth quarter of 1996.
Morocco	1995	(1)	CMS-led consortium selected by the Moroccan Government to exclusively negotiate a definitive agreement for the privatization and expansion of a Moroccan power plant. The privatization of the coal-fired Jorf Lasfar plant, southwest of Casablanca, would include a 30-year concession agreement to operate two 330 MW generating units already in service and to construct and operate another two 330 MW units. The output of the plants will be sold to the Moroccan national utility. The operations of the existing facilities acquired are expected to partially finance the construction of the two additional units.
Philippines	1997	(1)	Acquired 29.5 percent of Magellan Cogeneration with plans to increase position to 44 percent. Magellan is located on the island of Luzon. Previously, CMS had acquired 47.5 percent of Toledo Power Company on the island of Cebu.
Turkey	1998	165	Led the consortium that won the concession rights for 30 years in the privatization of the Bursa-Yalova region electric distribution system. CMS holds 30 percent of the consortium and will serve as the system operator. Other partners are Ihlas Holding and Howard Energy Group, which hold 55 percent and 15 percent of the consortium, respectively
CSW			
Brazil	1996	4	Acquired an equity stake in Empresa de Electricidade Vale Maranapanema, a distribution company. Increased stake to 46 percent in 1998.
United Kingdom	1996	1,600	Acquired Seeboard, a regional electric company.
Dominion Resources			
United Kingdom	1996	2,200	Acquired East Midlands Electricity PLC, one of the 12 regional electric companies. Sold its holdings to PowerGen of the UK for $3.2 billion in 1998, taking a pretax profit of $800 million.

Annex A—*Continued*
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
Edison Mission Energy			
Australia	1992	1,900	Acquired 51 percent of Loy Yang B Power Station, which generates 18 percent of the electric power for the state of Victoria. Purchased additional 49 percent in May 1997.
	1996	108	Began commercial operations at Kwinana, a 116 Mw gas-fired cogeneration project located near Perth, Australia. The project, which is 100-percent owned by EME, supplies electricity to Western Power (formerly the State Electricity Commission of Western Australia) and both electricity and steam to the British Petroleum Kwinana refinery.
Indonesia	1995	2,500	In partnership with Mitsui & Co. Ltd., General Electric Corporation and P.T. Batu Hitam Perkasa, an Indonesian limited liability, commenced construction of the Paiton project, a 1,230-Mw coal-fired power plant in East Java. Ownership level was 40 percent as of 1996.
Italy	1996	1,300	Entered into a 20-year power purchase contract with ENEL S.p.A., Italy's state electricity corporation, in partnership with ISAB S.p.A. EME holds 49 percent ownership. Under the contract, ENEL S.p.A. will purchase 507 MW of output from the 512 MW ISAB power project, which is located near Siracusa in Sicily, Italy. Construction commenced in July 1996 and commercial operation is expected in late 1999.
Philippines	1997	(1)	Participating in the development of generation facilities.
Spain	1992-93, 1996	(1)	Holds equity in Iberian Hy-Power projects (which consist of 18 small, hydroelectric facilities). Iberian Hy-Power I was acquired in December 1992, and Iberian Hy-Power II was acquired in August 1993. In January 1996, EME purchased the remaining equity stake in Iberian Hy-Power Amsterdam, B.V., increasing its ownership percentage to approximately 100 percent (minority interests are owned in three of the projects by third parties).
Thailand	1997	(1)	Participating in the development of generation facilities.
Turkey	1995	180	In February 1995, EME (80 percent ownership) signed a shareholders agreement to develop the Doga Enerji A.S. project in Esenyurt, near Istanbul, Turkey. The 180-mw combined cycle gas-fired cogeneration facility is expected to commence commercial operations in 1998.
United Kingdom	1995	1,000	Acquired the First Hydro project located in North Wales through First Hydro Finance Plc, an indirect subsidiary of EME. First Hydro is an independent generating company. Previously, EME had acquired the Roosecote project in northwest England, and the Derwent project located in Derby, England.

52

Annex A—*Continued*
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
Enron			
Brazil	1997	5	Won bid to build, own, and operate a 480 MW gas-fired power plant in the state of Mato Grosso.
India	1995	(1)	Began Dabhol Power Plant project with partners. The 2,450 MW plant will be fueled by liquified natural gas, the largest such facility outside of Japan. Enron holds 80 percent equity and serves as operator and fuel manager. GE Capital and Bechtel each hold 10 percent equity. Project is expected to begin commercial production in Dec. 1998.
	1998	5	Entered into agreement with Kannur Power Projects to develop the Kerala power project. Enron will hold 74 percent equity in the project.
Italy	1997	2 3,000	Entered 50/50 joint venture agreement between Enron Europe Ltd., a subsidiary, and ENEL Societa per Azioni, to develop capacity of up to 5000 Mw. Existing operations in Italy include 45 percent share of Sarlux for construction, operation, and ownership of 550 MW IGCC power plant in Sardinia.
Entergy			
Argentina	1994	(1)	Together with Duke Energy Corp and National Grid of the United Kingdom, acquired 65 percent of Transener, Argentina's major transmission company. Entergy holds 10 percent. Previously, Entergy had acquired 5 percent of Edesur, a distribution company, 6 percent of Costanera and 10 percent of the Costanera expansion project. Costanera is a generation facility.
Australia	1996	1,200	Acquired Citipower, a distribution company. In August 1998, announced plans to sell interests in such distribution companies to focus on the wholesale generation business.
Brazil	pre-1995	(1)	Acquired 50 percent of the Juba generation facility.
Chile	1997	(1)	Entered joint venture with Endesa to form Compania Electrica San Isidro, which will build a 370 MW gas-fired generation facility in Quillota (Central Chile). Entergy holds 25 percent interest.
Pakistan	pre-1995	(1)	Acquired 100 percent of Hub River, a generation facility.
Peru	pre-1995	(1)	Acquired 21 percent of Edegel, a generation facility.
United Kingdom	1996	2,100	Agreed to acquire London Electricity PLC, one of the 12 regional electric companies. In August 1998, announced plans to sell interests in such distribution companies to focus on the wholesale generation business.
GPU			
United Kingdom	1996	1,400	Acquired Midlands, a regional electric company, in partnership with Cinergy.
New Century Energies			
United Kingdom	1997	1,200	Acquired Yorkshire Electricity Group, a regional electric company, in partnership with American Electric Power.

Annex A—*Continued*
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
Pacificorp			
Australia	1995	1,600	Acquired Powercorp, a distribution and marketing company.
	1996	157	Acquired 19.9 percent interest in the 1,600 MW Hazelwood coal-fired generating station and adjacent mine located in Victoria, Australia.
Philippines	1997	175	Joint venture partner with Aboitiz Equity Ventures and Pacific Hydro Limited in the Bakun hydroelectric project, a build, own, transfer project. Pacificorp holds 33 percent equity.
PP&L Global			
Chile	1997	(1)	Acquired 27 percent of Emel, which holds distribution assets in Chile and Bolivia.
El Salvador	1998	180	Acquired 37.5 percent of DelSur, a distribution company, in partnership with Emel of Chile.
Peru	1996	250	Participated in consortium to build and operate power plant and natural gas-related facilities in the Aguaytia region. PP&L Global holds approximately 10 percent equity in the venture.
Portugal	1996	(1)	Established a joint venture with Hydrocontracting of Vienna, Austria, to develop and operate five small hydroelectric power plants.
Spain	1996	(1)	Established a joint venture with Hydrocontracting of Vienna, Austria, to develop and operate five small hydroelectric power plants.
United Kingdom	1995	1,100	Acquired 25.5 percent of SWEB, a regional electric distribution company, in partnership with Southern Company. Acquired additional 25.5 percent from Southern in June 1998, such that PP&L holds 51 percent, although Southern retains management control.
Southern Energy			
Argentina	(1)	(1)	Led consortium that acquired 59 percent of Hidroelectrica Alicura S.A., located in the Patagonia region. Southern holds management control.
Brazil	1997	1,056	Acquired option to buy 3.6 percent of Companhia Energetica de Minas Gerais (CEMIG) in partnership with AES and others. CEMIG, in Belo Horizonte, serves the state of Minas Gerais in southern Brazil as a fully integrated utility. The consortium acquired 33 percent of voting shares, which represents a 14.4 percent "economic interest." Southern did not put up any money, but provided technical and operational support. In January, 1998, Southern acquired 8.6 percent of voting shares (3.6 percent economic interest) for nearly $300 million. AES holds 21.1 percent and the State of Minas Gerais holds 51 percent equity.
Chile	(1)	(1)	Holds majority interest in Empresa Electrica del Norte Grande S.A. (Edelnor). Edelnor has three generation facilities and a fourth under development, and also operates the transmission grid for northern Chile.
Germany	1997	3,320	Acquired 25 percent of Berliner Kraft und Licht AG (Bewag), Berlin's electric utility from the city government with two German partners, Veba AG, and Viag AG, each of which will also own 25 percent. Southern holds management control.

Annex A—*Continued*
International electric power investments of U.S. companies, by country

U.S. company/ country	Year	Value (*Million dollars*)	Acquisition description
Southern Energy—*Continued*			
Grand Bahamas	(1)	(1)	Holds 50 percent equity and management control of Freeport Power Company.
Hong Kong	1996	3,200	Acquired Consolidated Electric Power Asia (CEPA), which develops, constructs, owns and operates electric power generation facilities. CEPA presently has projects either completed or under development in the Philippines, the People's Republic of China, Indonesia, and Pakistan.
Trinidad and Tobago	(1)	(1)	Holds 39 percent equity in PowerGen Co., which owns and operates power generation facilities. Partners include the Trinidad and Tobago Electricity Commission (51 percent) and Amoco Power Resources (10 percent).
United Kingdom	1995	1,800	Acquired SWEB, one of the United Kingdom's 12 regional electric distribution companies, in partnership with PP&L. As of June, 1998, PP&L acquired 51 percent, but Southern retains management control.
Tenaska			
Bolivia	1997	(1)	Acquired 75 percent interest in Hidroelectrica Boliviana, a hydroelectric generating company.
India	(1)	(1)	Codeveloping an independent power project for a 330 MW facility in Guna, Madhya Pradesh State. Commercial operation planned for 2001. Partners are Steel Tubes of India, Providence Securities Ltd. (Mauritius), MCN Investment Corp. (U.S.), Illinova Corp. (U.S.), and CSW (U.S.).
Pakistan	1998	(1)	Managing sponsor of consortium to develop Uch Power Ltd., a 586 MW gas-fired plant in Balochistan. Partners are Midlands Power International (UK but owned by Cincergy and GPU of the United States), GE Capital (U.S.), Hasan Associates (Pakistan), Hawkins Oil and Gas (U.S.), and Illinova Corp. (U.S.).
Texas Utilities			
Australia	1995	1,500	Acquired Eastern Energy, a distribution company that serves the eastern half of Victoria State.
United Kingdom	1998	7,400	Acquired Energy Group by beating the offer of Pacificorp. Energy Group is comprised of Eastern Electric, a regional electric company, and Peabody Coal Company.
Utilicorp			
Australia	1995	1,800	Holds 49.9 percent ownership of Power Partnership Limited with Australian partners, which acquired United Energy Ltd., a distribution company.
Canada	(1)	(1)	Holds 100 percent of West Kootenay Power.
New Zealand	1995-96	(1)	Through UtiliCorp N.Z., Inc. (UNZ), a 79-percent-owned subsidiary, purchased a 29.4 percent ownership interest in Power New Zealand Limited (PNZ) in November 1995, and subsequently increased position to 30.3 percent in 1996. In addition, UNZ has a 39.5 percent ownership position in WEL Energy Group Limited (WEL). Both PNZ and WEL are New Zealand electric distribution utilities.

[1] Not available.
[2] Equity investment is $300 million each, with debt financing of $2.4 billion.

Source: Compiled by USITC staff from annual reports, press releases, and other secondary sources.

Annex B
Highlights of industry-specific commitments on energy-related services under the GATS

Trading partner/ Mode of supply[1]	Market access	National treatment[2]	Comment
Australia			
Cross-border supply	None[3]	None	These commitments apply to consultancy services related to the transmission and distribution on a fee or contract basis of electricity, gaseous fuels and steam and hot water to household, industrial, commercial and other users.
Consumption abroad	None	None	
Commercial presence	None	None	
Presence of natural persons	Unbound,[4] except for measures permitting the entry and temporary stay of senior managers and specialists.	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	
Canada			
Cross-border supply	Unbound	Unbound Partial[5]	These commitments were presented in Canada's horizontal commitments, which describe broad measures applicable to all or several industries. Canada did not specify energy-related service industries in its industry-specific commitments. As a result, it is not clear to what extent market access and national treatment are indeed accorded.
Consumption abroad	Unbound	Unbound Partial[5]	
Commercial presence	Unbound	Unbound	
Presence of natural persons	Unbound	Unbound	
Dominican Republic			
Cross-border supply	None	Unbound	These commitments apply to services incidental to energy distribution.
Consumption abroad	None	Unbound	
Commercial presence	None	Unbound	
Presence of natural persons	Unbound	Unbound	
European Union			
Cross-border supply	Unbound	Unbound	These commitments were presented in the European Union's horizontal commitments, which describe broad measures applicable to all or several industries. The European Union did not specify energy-related service industries in its industry-specific commitments. As a result, it is not clear to what extent market access and national treatment are indeed accorded.
Consumption abroad	Unbound	Unbound	
Commercial presence	Unbound Partial[6]	None	
Presence of natural persons	Unbound	Unbound	
Hungary			
Cross-border supply	None	None	These commitments apply to consultancy services incidental to energy distribution.
Consumption abroad	None	None	
Commercial presence	None	None	
Presence of natural persons	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	

Annex B—*Continued*
Highlights of industry-specific commitments on energy-related services under the GATS

Trading partner/ Mode of supply[1]	Market access	National treatment[2]	Comment
Iceland			
Cross-border supply	Unbound	Unbound	These commitments were presented in Iceland's horizontal commitments, which describe broad measures applicable to all or several industries. Iceland did not specify energy-related service industries in its industry-specific commitments. As a result, it is not clear to what extent market access and national treatment are indeed accorded.
Consumption abroad	Unbound	Unbound	
Commercial presence	Unbound Partial[7]	Unbound	
Presence of natural persons	Unbound	Unbound	
India			
Cross-border supply	Unbound	Unbound	These commitments apply only to research and development services related to heat, light, and electromagnetism.
Consumption abroad	Unbound	Unbound	
Commercial presence	Only through incorporation with a foreign equity ceiling of 51 percent.	None	
Presence of natural persons	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	
Malaysia			
Cross-border supply	None	None	These commitments apply only to management consulting services covering advisory, guidance and operational assistance services concerning management of the transmission of non-conventional energy.
Consumption abroad	None	None	
Commercial presence	Only through a locally incorporated joint-venture corporation with Malaysian individuals or Malaysian-controlled corporations or both and Bumiputera shareholding in the joint-venture corporation is at least 30 percent.	None	
Presence of natural persons	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	
Nicaragua			
Cross-border supply	None	None	These commitments apply to services incidental to energy distribution.
Consumption abroad	Unbound	Unbound	
Commercial presence	None	None	
Presence of natural persons	Unbound	Unbound	

Annex B—*Continued*
Highlights of industry-specific commitments on energy-related services under the GATS

Trading partner/ Mode of supply[1]	Market access	National treatment[2]	Comment
Peru			
Cross-border supply	Unbound	Unbound	These commitments were presented in Peru's horizontal commitments, which describe broad measures applicable to all or several industries. Peru did not specify energy-related service industries in its industry-specific commitments. As a result, it is not clear to what extent market access and national treatment are indeed accorded.
Consumption abroad	Unbound	Unbound	
Commercial presence	Unbound Partial[8]	Unbound	
Presence of natural persons	Unbound	Unbound	
Republic of Slovenia			
Cross-border supply	None	None	These commitments apply only to services incidental to gas distribution.
Consumption abroad	None	None	
Commercial presence	None	None	
Presence of natural persons	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	
United States			
Cross-border supply	None	None	These commitments apply only to services incidental to energy distribution.
Consumption abroad	None	None	
Commercial presence	None	None	
Presence of natural persons	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	Unbound, except for measures permitting the entry and temporary stay of senior managers and specialists.	

[1] Services may be delivered through four "modes of supply." These are 1) Cross-border supply, wherein a service provider mails, electronically transmits, or otherwise transports a service across a national border; 2) Consumption abroad, wherein a consumer, such as a tourist, patient, or student, travels across national borders to consume a service; 3) Commercial presence, wherein a service supplier establishes a foreign-based corporation, joint venture, partnership, or other establishment, to supply services to foreign persons; and 4) Presence of natural persons, wherein an individual, functioning alone or in the employ of a service provider, travels abroad to deliver a service.

[2] National treatment generally accords to foreign firms the same rights and obligations accorded to domestic firms.

[3] None signifies that the country has made a binding commitment that it does not maintain, and will not impose, any measures limiting either market access or national treatment.

[4] Unbound signifies that the country has not made any binding commitments to accord market access or national treatment.

[5] In addition, first consideration may be given to service suppliers from within Alberta or Canada where competitive in terms of price and quality in the case of all large scale energy projects needing Industrial Development, Forest Management, Oil Sands, Power Plant or Gas Plant and Coal Development Permits. In Newfoundland and Nova Scotia, regulations require that first consideration be given to services provided within the province to petroleum operations where they are competitive in terms of price, quality and delivery.

[6] In addition, in all EU Member States services considered as public utilities at a national or local level may be subject to public monopolies or to exclusive rights granted to private operators. In Italy, exclusive rights may be granted or maintained to newly-privatized companies. Voting rights in newly privatized companies may be restricted in some cases. For a period of five years, the acquisition of large equity stakes of companies operating in the fields of defence, transport services, telecommunications and energy may be subject to the approval of the Ministry of Treasury.

[7] In addition, non-residents are excluded from obtaining full property rights of real estate if unusual rights are linked to it, such as exploitation rights as regards waterfalls, geothermal energy, etc.

[8] In addition, in connection with property, Peru's Political Constitution provides that within 50 kms. of the frontier foreigners may not under any circumstances directly or indirectly purchase or own mines, land, woodland, water resources, fuel or energy sources, whether individually or as a company, on penalty of transfer of the rights thus acquired to the State.

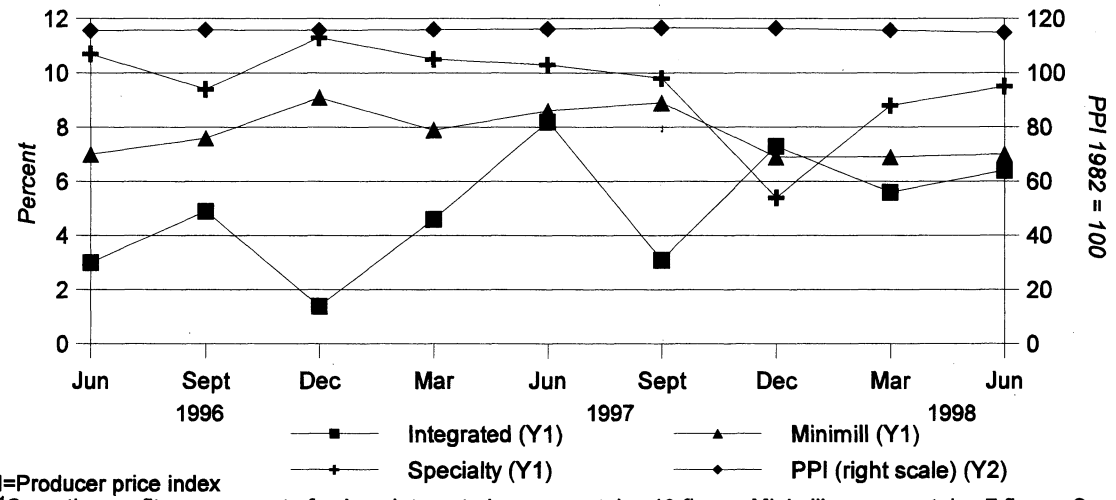
Source: Compiled from WTO documents by USITC staff.

APPENDIX A
KEY PERFORMANCE INDICATORS OF SELECTED INDUSTRIES

- ☐ **STEEL** (Tracy Quilter, 202-205-3437/tquilter@usitc.gov)
- ☐ **AUTOMOBILES** (Laura A. Polly, 202-205-3408/polly@usitc.gov)
- ☐ **ALUMINUM** (Harpreet Kaur, 202-205-3120/hkaur@usitc.gov)
- ☐ **FLAT GLASS** (James Lukes, 202-205-3426/lukes@usitc.gov)
- ☐ **SERVICES** (Christopher Melly, 202-205-3461/melly@usitc.gov)

STEEL

Figure A-1
Steel industry: Profitability by strategic group[1], producer price index for steel products



PPI=Producer price index
[1]Operating profit as a percent of sales. Integrated group contains 10 firms. Minimill group contains 7 firms. Specialty group contains 5 firms and now includes Universal Stainless; financial data for Lukens' speciality operations is no longer available.
Source: Individual company, financial statements and U.S. Bureau of Labor Statistics.

- Prices of steel mill products were subject to deflationary pressures during the second quarter 1998. On June 5, the United Auto Workers union began a 54-day work stoppage against General Motors, forcing steel producers and distributors to find alternative customers for their products. Many steelmakers also attributed price declines for some steel products to the devaluation of several Asian currencies since mid-1997.

- Profitability for these three industry sectors rose slightly, reflecting continued strong demand for steel products, particularly steel plate. Many steelmakers cite increased shipments and reduced costs as the primary reasons for steady profitability despite lower average selling prices and planned production outages, such as the blast furnace relines at LTV and National Steel.

Table A-1
Steel mill products, all grades

Item	Q2 1998	Percentage change, Q2 1998 from Q2 1997	YTD 1998	Percentage change, YTD 1998 from YTD 1997
Producers' shipments *(1,000 short tons)*	27,204	2.1	54,524	5.1
Imports *(1,000 short tons)*	10,589	29.3	18,234	12.4
Exports *(1,000 short tons)*	1,429	-2.3	3,049	6.9
Apparent supply *(1,000 short tons)*	36,364	9.0	69,715	6.8
Ratio of imports to apparent supply *(percent)*	29.1	[2]6.2	26.2	[2]1.3

[1]Based on unrounded numbers.
[2]Percentage point change.

Note.–Because of rounding, figures may not add to the totals shown.
Source: American Iron and Steel Institute.

STEEL

Table A-2
Steel service centers

Item	Jun. 1998	Percentage change, Jun. 1998 from Dec. 1997[1]	Q2 1998	Q2 1997
Shipments *(1,000 net tons)*	2,563	-4.0	7,594	7,336
Ending inventories *(1,000 net tons)*	8,051	8.3	8,051	7,225
Inventories on hand *(months)*	3.3	([2])	3.3	3.0

[1]Based on unrounded numbers.
[2]Not applicable.

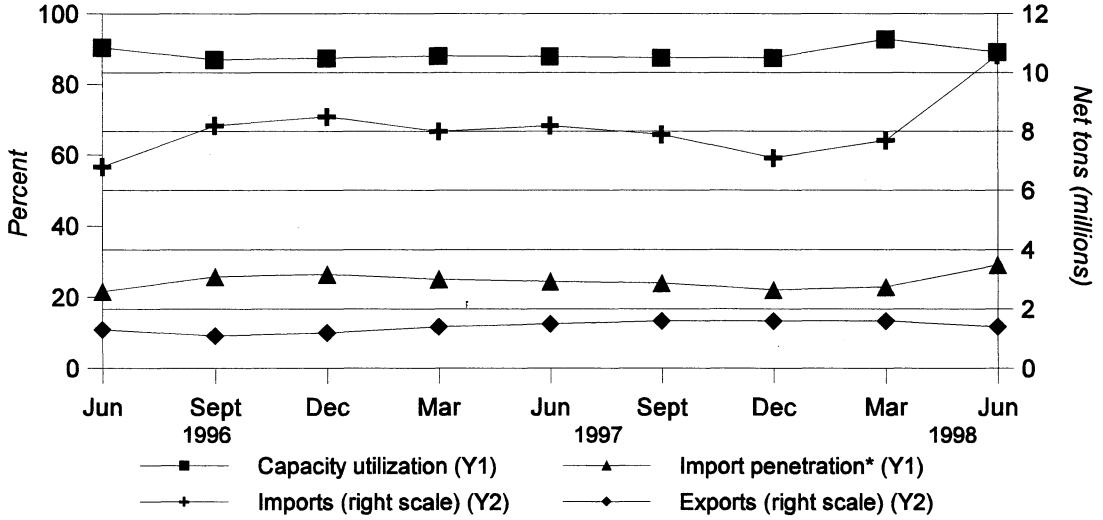
Note.–Because of rounding, figures may not add to the totals shown.
Source: Steel Service Center Institute.

- The Steel Service Center Institute (SSCI) reported a 4 percent decrease in shipments for the month of June 1998 when compared with March 1998, while Q2 1998 shipments increased 4 percent from the same period last year. A majority of respondents to SSCI's August survey suggested that current inventory levels are too high compared to current shipments and indicated that no shortages are expected within the next 3 months.

- Steel imports increased 29 percent from the second quarter 1997 to the second quarter 1998, raising overall import penetration to 29 percent, as U.S. demand for steel remained strong especially by the automotive and construction industries. U.S. exports declined as demand weakened in many other parts of the world.

- Capacity utilization dropped somewhat from 92.8 percent in the quarter ending March 1998 to 89.2 percent in the quarter ending June 1998; however, compared to the same period last year, capacity utilization for the quarter improved.

Figure A-2
Steel mill products, all grades: Selected industry conditions

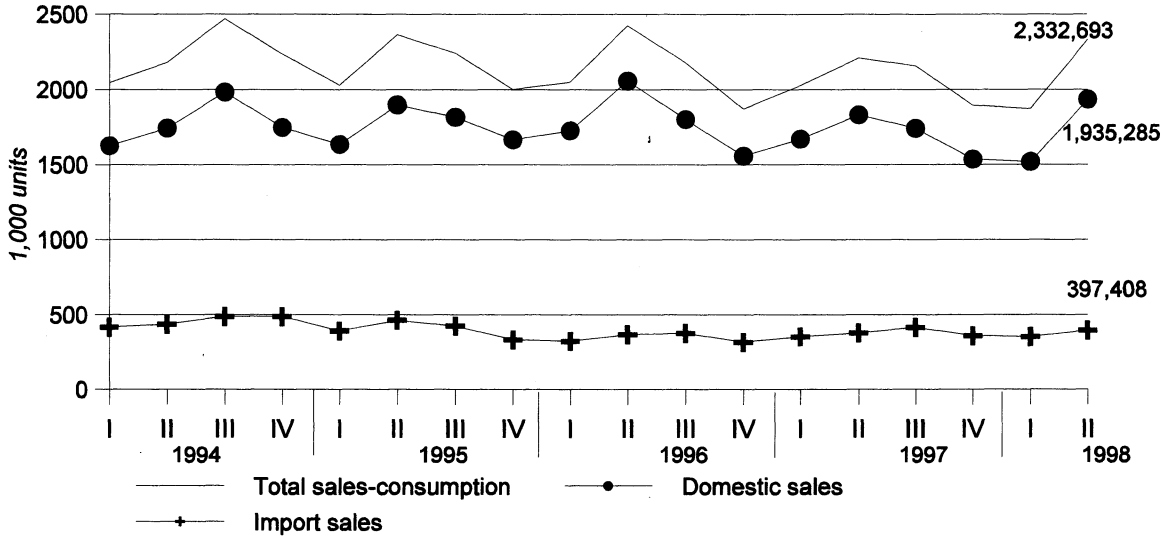


*Import share of apparent open market supply.
Source: American Iron and Steel Institute.

A-3

AUTOMOBILES

Figure A-3
U.S. sales of new passenger automobiles, by quarter



Note.–Domestic sales include all automobiles assembled in Canada and imported into the United States under the United States-Canadian automobile agreement; these same units are not included in import sales.

Source: *Automotive News*; prepared by the Office of Industries.

Table A-3
U.S. sales of new automobiles, domestic and imported, and share of U.S. market accounted for by sales of total imports and Japanese imports, by specified periods, January 1997-June 1998

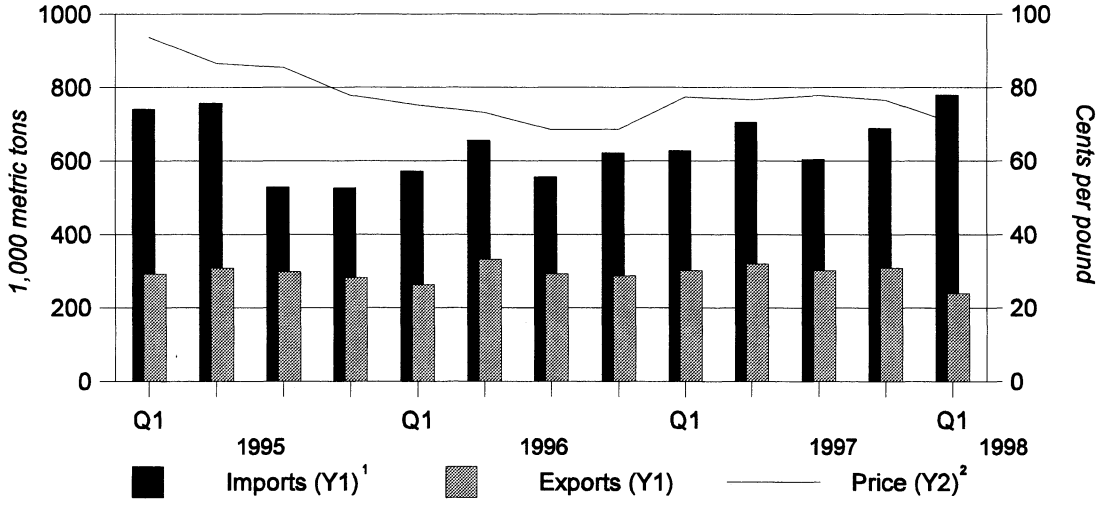
Item	Apr.-Jun. 1998	Percentage change- Apr.-Jun. 1998 from Jan.-Mar. 1997	Jan.-Jun. 1998 from Jan.-Jun. 1997
U.S. sales of domestic autos (*1,000 units*)[1]	1,935	27.4	-2.1
U.S. sales of imported autos (*1,000 units*)[2]	397	12.4	6.1
Total U.S. sales (*1,000 units*)[1,2]	2,333	24.6	-0.7
Ratio of U.S. sales of imported autos to total U.S. sales (*percent*)[1,2]	17.0	-9.8	7.2
U.S. sales of Japanese imports as a share of the total U.S. market (*percent*)[1,2]	8.5	-2.3	-0.5

[1] Domestic automobile sales include U.S.-, Canadian-, and Mexican-built automobiles sold in the United States.
[2] Does not include automobiles imported from Canada and Mexico.

Source: Compiled from data obtained from *Automotive News*.

ALUMINUM

Figure A-4
Aluminum: U.S. imports, exports, and price



[1] Crude forms (metals and alloys) and mill products (e.g., plates, sheets, and bars) for consumption.
[2] Quarterly average of the monthly U.S. market price of primary aluminum ingots.

Sources: U.S. Geological Survey, World Bureau of Metal Statistics.

- Lower production levels and increased domestic demand due to increased consumption in the transportation sector helped absorb a 13 percent increase in U.S. imports and a 23 percent decrease in U.S. exports in the first quarter of 1998, as compared to the preceding quarter. However, import penetration grew to 35 percent compared to 32 percent in the previous quarter.

- Strong growth in the European and U.S. markets kept the global market for aluminum stable, despite declining Asian demand associated with economic problems in the region. LME inventories fell 12 percent from the previous quarter causing tightness in the aluminum market despite falling prices.

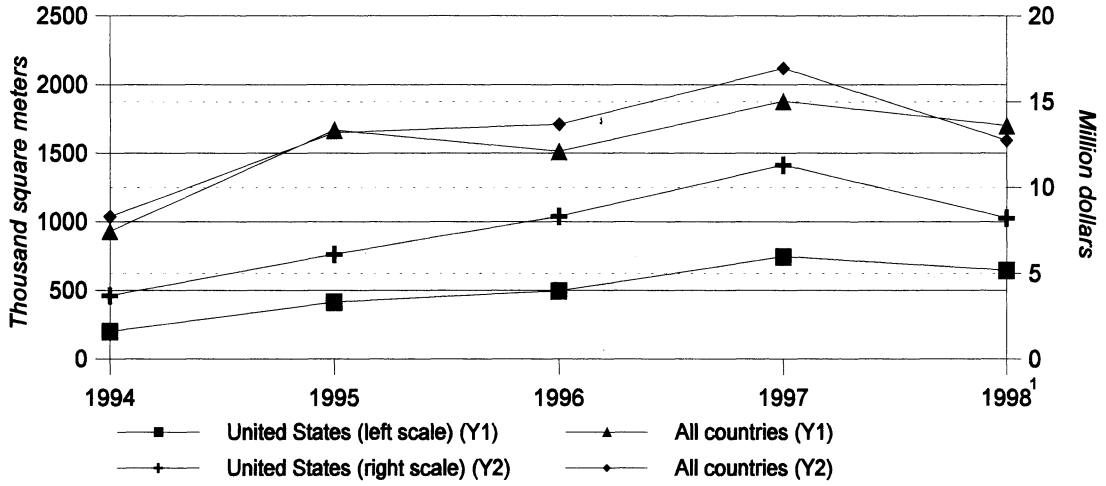
Table A-4
U.S. production, secondary recovery, imports, import penetration, exports, average nominal price, and inventory level of aluminum, by specified periods, January 1997-March 1997 and January 1998-March 1998

			Percentage change	
Item	Q1 1997	Q1 1998	Q1 1998 from Q4 1997	Q1 1998 from Q1 1997
Primary production (*1,000 metric tons*)	889	901	-1.5	1.3
Secondary recovery (*1,000 metric tons*)	936	855	-1.9	-8.7
Imports (*1,000 metric tons*)	628	779	13.1	24.0
Import Penetration (*percent*)	29	35	[1]3	[1]6
Exports (*1,000 metric tons*)	302	239	-22.7	-20.9
Average Nominal Price (¢/lb)	77.4	70.5	-7.8	-8.9
LME Inventory Level (*1,000 metric tons*)	853	564	-12.2	-36.0

[1]Percent point change
Source: Compiled from data obtained from U.S. Geological Survey & World Bureau of Metal Statistics.

FLAT GLASS

Figure A-5
Average monthly Japanese imports of flat glass, by quantity and value, from the United States and all countries, 1994-98[1]



[1] Data for 1998 include January-April.
Source: Compiled from official statistics of the Ministry of Trade and Industry, Japan.

Background

- The U.S.-Japanese agreement on Japanese market access for imports of flat glass[1] seeks to increase access and sales of foreign flat glass in Japan through such means as increased adoption of nondiscriminatory standards and expanded promotion of safety and insulating glass.[2] The agreement covers the 1995-99 period.

- Japanese demand for imported glass began weakening in the second half of 1997. The Asian financial crisis and an increase in the Japanese consumption tax from 3 to 5 percent likely were contributing factors.[3]

Current

- Japanese demand for imported glass has continued to weaken in 1998, with imports from the United States experiencing above-average declines. The average monthly quantity and value of Japanese imports from all countries decreased by 10 and 25 percent, respectively, for the first four months of 1998 to 1.7 million square meters ($12.7 million). Imports from the United States declined by 13 and 27 percent, respectively, to 647,000 square meters ($8.2 million).

- During the third annual review of the agreement held in Washington, DC, May 27-28, 1998, the United States expressed concern that progress had stalled during the past year.[4] The United States expressed support for implementation of new Japanese residential energy standards by March 1999 (possibly stimulating demand for insulated glass) and a follow-up survey of the Japanese flat glass industry. However, the United States noted that performance improvements by foreign firms during the last year have not resulted in increased market share and emphasized that foreign firms still have a small share of the total value of the Japanese market.[5] Imports from Japanese affiliates represent over half of the imports from North America and two-thirds of Japanese distributors said that they do not plan to use foreign glass in the future.[6]

[1] Flat glass is largely unworked; safety glass (tempered or laminated) and insulating glass are also covered under the U.S.-Japanese agreement on flat glass.

[2] USITC, "Flat glass," *Industry, Trade, and Technology Review*, Oct. 1997, p. 42.

[3] USITC, "Flat glass," *Industry, Trade, and Technology Review*, June 1998, p. 37.

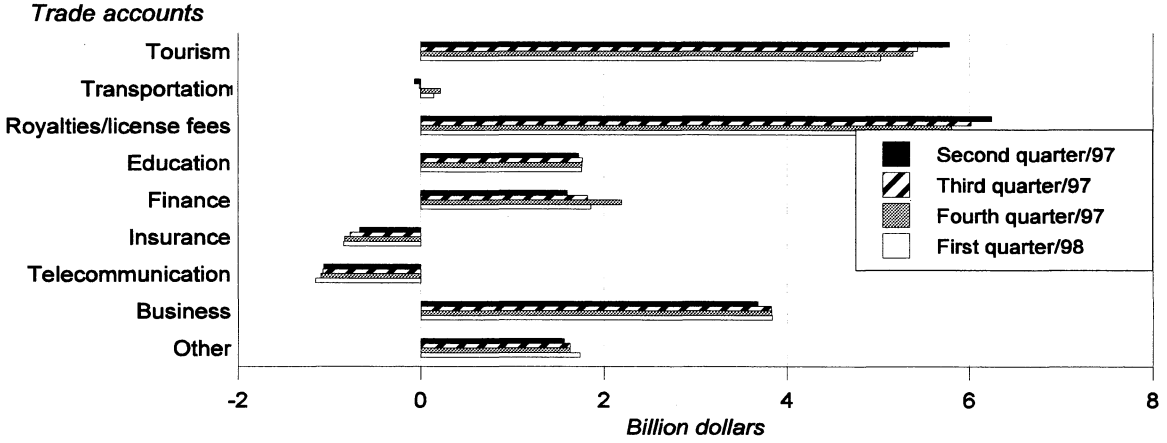
[4] U.S. Department of Commerce (USDOC) telegram, "Third Annual Review of the Agreement," prepared by USDOC, Washington, June 19, 1998, retrieved from Newsedge/NewsEDG July 16, 1998.

[5] In Japanese customer surveys foreign firms showed improvement in almost every category, ibid.

[6] Ibid.

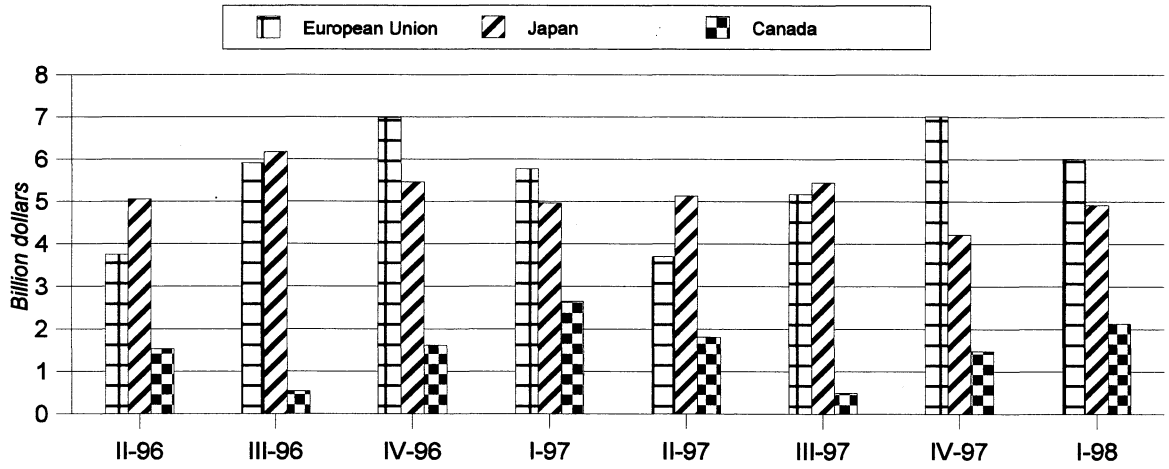
SERVICES

Figure A-6
Balance on U.S. service trade accounts, second quarter 1997 through first quarter 1998



[1] Includes port fees.
Source: Bureau of Economic Analysis, *Survey of Current Business*, July 1998, p. 87.

Figure A-7
Surpluses on cross-border U.S. service transactions with selected trading partners, by selected quarters, 1996-98[1]



[1] Figures reflect private-sector transactions only; military shipments and other public-sector transactions have been excluded.
Source: Bureau of Economic Analysis, *Survey of Current Business,* table 10, July. 1998, pp. 96-99.

A-7