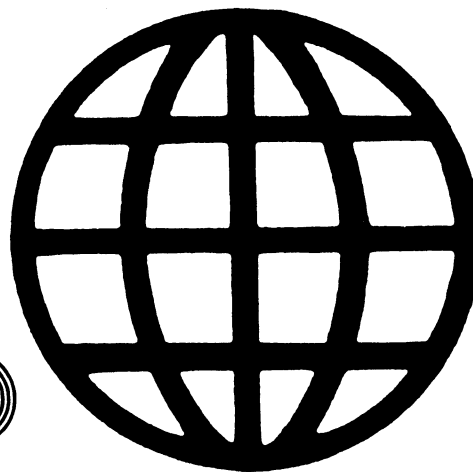


INDUSTRY  
TRADE AND  
TECHNOLOGY  
REVIEW



# PREFACE

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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**

(February 1994 - January 1997)

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### **February 1994**

Recent trade treaties likely to stimulate continuing changes in global sourcing of apparel  
Implications of beverage container legislation for industry, technology, and trade  
Computer software and the U.S. copyright regime: Setting limits for intellectual property protection  
U.S.-Japanese construction trade relations  
NAFTA and Mexico's Maquiladora industry  
U.S.-Canadian dispute on swine and pork trade

### **May 1994**

Microprocessor industry: Developments influencing global competition  
U.S. bicycle industry creates innovative products using metal matrix composites  
Aluminum product development and the automotive industry  
Electric utility industry compliance with "acid rain" clean air standards portends favorable U.S. air pollution control equipment market

### **August 1994**

Computer outsourcing services: Telecommunication regulation affects global competitive position of U.S. firms  
Systems integration services enhance U.S. global competitiveness  
Economics and innovation spur shift from mechanical fasteners to adhesives and sealants in certain automotive applications  
R&D consortia in the U.S. and Japanese automobile industry  
India and Pakistan resist commitments to greater market access in the textiles and apparel sector

### **October 1994**

Bovine somatotropin (bst): An application of genetic engineering to increase milk production  
Impact of environmental disposal laws on packaging worldwide  
Titanium industry seeks new markets which could bring competitive benefits to end users  
Regulatory environment impacts emerging personal communications industry  
Emerging focus on quality systems registration enhances market prospects for the U.S. instruments industry

### **March 1995**

NAFTA update: Steady U.S. bilateral trade growth with Mexico faces mixed prospects in 1995  
New manufacturing processes for materials: Government policies and programs towards commercialization  
Globalization and growth herald new markets for passenger rail suppliers  
Forces behind restructuring in U.S. apparel retailing and its effect on the U.S. apparel industry  
Steel in residential construction: A potentially significant developing market

## **Listing of Published Articles--Continued**

---

### **May 1995**

Section 22: Uruguay Round Agreement changes U.S. operation of agricultural program  
Telecommunication services: Bell companies act to join global network alliances  
The information superhighway: Global implications from current test projects  
Direct ironmaking: A case study in government and industry cooperation to commercialize new manufacturing processes for materials

### **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

# CONTENTS

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	<i>Page</i>
<b>Basic telecommunication service negotiations in the World Trade Organization: Impetus, offers, and prospects</b> .....	1
Factors driving liberalization .....	2
Factors driving negotiation .....	3
Prior trade agreements .....	5
Objectives of WTO negotiations on basic telecommunication services .....	6
April 30 offers, and U.S. perspective .....	7
Noteworthy achievements .....	14
The road ahead .....	14
Conclusion .....	15
<b>U.S. film industry: How mergers and acquisitions are reshaping distribution patterns worldwide</b> .....	17
The economics of the film industry .....	18
Mergers, acquisitions, and the revolution in film distribution .....	19
Back to the future .....	20
The movies and international trade negotiations .....	24
Conclusion .....	29
Annex: Mergers and acquisitions in the U.S. film industry .....	29
Twentieth Century Fox .....	29
Universal Studios (MCA Inc.) .....	30
Sony Entertainment Corporation .....	31
Walt Disney .....	32
Warner Brothers .....	32
Metro-Goldwyn-Mayer/United Artists (MGM/UA) .....	32
Paramount .....	33
<b>Global competitiveness and organized labor: The case of Caterpillar Inc. and the United Auto Workers Union</b> .....	35
Caterpillar as a global competitor .....	38
Quantitative indicators .....	38
Company strategy .....	41
Conclusion and implications .....	43

# CONTENTS--*Continued*

	<i>Page</i>
<b>Evolution of the U.S.-Japanese semiconductor trade regime</b> .....	45
The 1986 semiconductor arrangement (July 1986-July 1991) .....	48
The 1991 semiconductor arrangement (July 1996-July 1996) .....	51
The 1996 Agreements (August 1996-present) .....	54
U.S. industry status and outlook .....	56
<b>Appendix A: Key performance indicators of selected industries</b> .....	59
<b>Steel:</b>	
Figure A-1 Steel mill products, all grades: Selected industry conditions .....	60
Table A-1 Steel mill products, all grades .....	60
<b>Automobiles:</b>	
Figure A-2 U.S. sales of new passenger automobiles, by quarter .....	61
Table A-2 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, Jan. 1995-Sept. 1996 .....	61
<b>Aluminum:</b>	
Figure A-3 Aluminum: Selected U.S. industry conditions .....	62
Figure A-4 Aluminum: Price and inventory levels .....	62
<b>Services:</b>	
Figure A-5 Balances on U.S. service trade accounts, third quarter 1995 through second quarter 1996 .....	63
Figure A-6 Surpluses on cross-border U.S. service transactions with selected trading partners, by quarter, 1995-96 .....	63
<b>Semiconductor:</b>	
Figure A-7 Trend in foreign market share in Japan under the 1991 U.S.-Japan semiconductor arrangement .....	64

# Basic Telecommunication Service Negotiations in the World Trade Organization: Impetus, Offers, and Prospects

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*Negotiations to liberalize basic telecommunication services are presently scheduled to conclude by February 15, 1997. The WTO Secretariat extended these negotiations, which were originally scheduled to conclude on April 30, 1996, after the United States determined that "a critical mass" of trade-liberalizing offers was lacking among its 52 negotiating partners. More than 40 percent of world telecommunication revenues<sup>1</sup> and nearly 34 percent of global telecommunications traffic were not covered by offers acceptable to the United States.<sup>2</sup> This article explains why some countries have liberalized their telecommunication service markets and have promoted negotiations intended to place disciplines on international trade in these services. This article also summarizes the content of foreign offers as of April 30, and identifies elements of certain offers that were objectionable to the United States. In addition, the article lists key issues needing resolution by February 1997 and reviews the initial achievements of the negotiations.*

The United States and its trading partners are obliged to keep their most liberal offers on the table until January 15, 1997, but are not obliged to accord foreign firms market access, national treatment,<sup>3</sup> or most-favored-nation (MFN) treatment.<sup>4</sup> Beginning January 15, 1997, for a period

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<sup>1</sup> The global telecommunications market is valued at \$513 billion. See International Telecommunications Union (ITU), *World Telecommunication Development Report 1995* (Geneva: ITU, 1995), p. A-59.

<sup>2</sup> Office of the United States Trade Representative (USTR), Statement of Ambassador Charlene Barshefsky, April 30, 1996.

<sup>3</sup> National treatment generally accords to foreign firms the same rights and obligations accorded to domestic firms.

<sup>4</sup> Most-favored-nation (MFN) treatment accords to one trading partner terms and conditions of trade that are no less favorable than those accorded to any other trading partner. The right to withhold  
(continued...)

of one month, nations will regain freedom to make new offers, whether more or less liberal than current offers, and to list MFN exemptions. Despite extension of the talks, the basic telecommunications agreement, if concluded, will enter into force as initially scheduled, on January 1, 1998.<sup>5</sup>

## Factors Driving Liberalization

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Enlightened self-interest promoted heavy regulation of the telecommunication service market in the past, just as today it promotes the deregulation and liberalization of the same market. Historically, government regulation has been rooted in the belief that telecommunications is a public good, offering economic and social benefits to the public beyond those delivered directly to individual consumers. Until recently, government regulation also stemmed from recognition that wireline telecommunication networks were "natural monopolies," characterized by specialized technology and high barriers to entry. Government regulation was designed to maximize direct and indirect benefits, usually by requiring or promoting universal coverage, high service quality, and affordable prices.

The belief that telecommunications is a public good still holds, but technological developments have steadily chipped away the foundation of the natural monopoly argument. In the United States, for example, microwave transmission technology enabled U.S. regulators to introduce competition in the long-distance telecommunication market, and cellular communications and personal communications technology promoted competition in the local market. Satellite technology, and satellite networks such as those comprising low-earth orbiting satellites (LEOS), promise to complement existing cellular services and provide viable alternatives to submarine cables used to provide international services. Cable television networks, which are capable of providing telecommunication services, also have made inroads into a large number of homes. In short, technological progress and the subsequent emergence of new industries have reduced the cost of entering the telecommunication market, made by-pass of the preexisting telecommunications network viable, and therefore reduced the applicability of the "natural monopoly" argument.

Technological developments also have enabled a multitude of firms to provide enhanced, or value-added, telecommunication services. These services include facsimile transmission, electronic mail, voice mail, on-line information and data base retrieval, on-line processing, electronic data interchange, and other services that add value to telecommunication services beyond the transmission of voice or data signals. The advent of these services created a

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<sup>4</sup> (...continued)

MFN treatment from trading partners is one, although not the only, critical difference between the WTO's interim financial services agreement, scheduled to last until December 1997, and the present situation regarding basic telecommunication services.

<sup>5</sup> For coverage of the extension of the talks, see John Parry and Mark Felsenthal, "Telecommunications: WTO Telecom Talks Near Failure as Last Day Approaches; U.S. Criticizes Offers," *BNA International Trade Daily*, May 1, 1996; John Parry and Mark Felsenthal, "Telecom: World Telecom Services Talks Extended as U.S. Takes Dim View of Other Offers," *BNA International Trade Daily*, May 2, 1996; and "Telecommunications: Trade Official Defends Move to Delay World Telecom Pact: Lawmakers Support," *BNA International Trade Daily*, May 13, 1996.



regulatory dilemma, which in countries such as Austria and Belgium motivated telecommunication authorities to establish boundaries between basic services, essentially voice and data transmission, which would remain the preserve of traditional monopolies, and value-added services that would be provided on a competitive basis. These boundaries became increasingly arbitrary as analog networks were replaced by digital networks, which transmit voice signals just as they would facsimile or other value-added services. In other countries, such as the United Kingdom and New Zealand, telecommunication regulators opened all services to competition among the preexisting monopoly and new market entrants. This option eliminated the need to establish problematic boundaries between basic and value-added services, but if coupled with high leased line<sup>6</sup> fees, discriminatory interconnection<sup>7</sup> policies, or other anti-competitive practices, the approach may still adversely affect the development and competitiveness of value-added service providers. Still other countries may introduce competition in both infrastructure and services. This approach could create dynamic markets with relatively low service fees and broad service offerings, but regulators also recognize that the approach could promote duplicate, perhaps wasteful, investment.

## Factors Driving Negotiation

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The emergence of multiple regulatory frameworks, in part, underlies interest in convening global negotiations on telecommunication services. The creation of widely varying regulatory frameworks has increased the complexity of conducting international business and, in certain instances, reduced the transparency of regulatory policies. These factors may have grave implications for virtually all developed countries and many developing countries whose gross domestic product and private sector employment are predominantly rooted in what is variously referred to as the service, information, or knowledge-based economy. Irrespective of what this economic configuration is termed, it in large part focuses on the collection, storage, manipulation, analysis, and dissemination of information. Consequently, a telecommunication network fraught with uncertainties and inefficiencies acts as a brake on global economic growth. Additionally, those countries with relatively higher telecommunication costs and narrower service offerings are likely to experience a decline in the global competitiveness of their firms, service providers and manufacturers alike.

The need to eliminate current trade-distorting practices, and avert potential ones, also underlies interest in negotiation. For instance, some developed countries have pushed for telecommunication negotiations because they post chronic deficits on trade in

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<sup>6</sup> Leased lines are lines dedicated to users requiring exclusive or continuous capacity for rapid voice and, principally, data transmission. Because leased lines are one of the integral building blocks of private and value-added networks, their availability and pricing significantly influence the competitive position of the lessee.

<sup>7</sup> Interconnection is the technical interface between two networks, such as that between a private network constructed by private firms and the public switched network operated by the state monopoly. The terms and conditions of interconnection significantly influence the competitive position of the firm seeking connection to the public switched network.

telecommunication services.<sup>8</sup> The United States posts the largest of these deficits by far. In 1995, the United States recorded a \$3.9 billion deficit in the telecommunication service account.<sup>9</sup> The deficit principally arises because the United States records more outbound telecommunications traffic than inbound traffic. Telecommunication carriers with excess outbound traffic periodically compensate carriers terminating that traffic with settlement payments. The size of settlement payments is dependent on accounting rates<sup>10</sup> that were negotiated by monopoly carriers beginning in the late nineteenth century. Where monopoly carriers still exist, these rates have exhibited a tendency to remain high. Thus, factors that adversely affect the U.S. trade balance include relatively low international calling prices in the United States, which promote outbound calls; the average length of outbound calls, which are longer for calls originating in the United States; and devaluation of the dollar, which increases the size of settlement payments.<sup>11</sup>

Moreover, the disparity of international calling charges has promoted the development of new international calling services, which have contributed to trade distortion in recent years. In particular, the increasing popularity of call-back and country direct services are inflating the deficits recorded by the United States. Call-back services are provided when a customer outside the United States places a call to an assigned number, hangs up after a specified number of rings, and immediately receives a computer-driven return call with a dial tone from a U.S. call-back firm. This customer may then place a call to any destination, with the call appearing as an outbound call from the United States for accounting purposes. Country-direct services provide U.S. customers in foreign locations with direct connections to U.S. carriers, which then provide calling services to desired locations. These calls, too, appear as outbound calls from the United States.<sup>12</sup>

U.S. trade can be further distorted as a result of unequal market access. Telecommunications traffic entering the United States can inflate U.S. settlement payments if carriers from unliberalized markets route a substantial number of calls to the United States through resold international leased lines, while U.S. carriers are prohibited from routing calls to unliberalized markets using the same type of lines. Under these conditions, inbound calls (over leased lines) would not be subject to the international settlements process, whereas outbound calls would be. In other words, U.S. carriers would not be able to "charge" inbound calls against foreign carriers, but foreign carriers would still be able to "charge" outbound calls from the United States against U.S. carriers. Unequal market access may also distort trade if countries with relatively liberal investment climates, like the United States, allow foreign telecommunication monopolies to establish affiliates in the U.S. market, allow these affiliates to send outbound calls to their monopoly parent company, and collect rebates from the monopoly to offset accounting rates. Theoretically, this would allow foreign-owned affiliates in the United States

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<sup>8</sup> Organization for Economic Cooperation and Development (OECD), *Services: Statistics on International Transactions, 1970-1993* (Paris: OECD, 1996), pp. 70-73.

<sup>9</sup> For a fuller discussion of U.S. trade in telecommunication services, see U.S. International Trade Commission (USITC), *U.S. Trade Shifts in Selected Industries: Services*, publication 2969.

<sup>10</sup> An accounting rate is the price-per-minute charged by communication carriers for terminating inbound international calls.

<sup>11</sup> ITU, *World Telecommunication Development Report 1994* (Geneva: ITU, 1994), pp. 27-29.

<sup>12</sup> Ben Petrazzini, *Global Telecom Talks: A Trillion Dollar Deal* (Washington, DC: Institute for International Economics (IIE), 1996), pp. 21-23.

to provide international calling services to their parent company's home market at far lower prices than competing U.S. firms, which would be obliged to make settlement payments to the foreign carrier without collecting offsetting rebates.

## Prior Trade Agreements

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The WTO's efforts to liberalize trade in telecommunication services are unprecedented in scope. Prior to the ongoing WTO negotiations, trade negotiators usually focused their efforts solely on liberalizing trade in value-added telecommunication services, which reportedly account for about 15 percent of global telecommunication services.<sup>13</sup> Basic telecommunication services, accounting for the remainder, fell outside the scope of negotiations, although some trade agreements include language that appears to endorse the principle of liberalizing trade in basic telecommunication services in the future.

In the European Union (EU), a directive adopted in 1990 liberalized the market for telecommunication services other than basic voice telephony. By adopting a complementary framework directive on Open Network Provision (ONP), the EU intended to promote competition in the provision of value-added services by compelling national regulatory authorities to provide value-added service providers with access to the public switched network. In 1993, the EU reached internal agreement on liberalizing domestic and international voice telephony, but established January 1998 as the time for implementation, and granted derogations of up to 5 years to Ireland, Spain, Portugal, and Greece.<sup>14</sup>

The North American Free Trade Agreement (NAFTA) provides a framework of rights and obligations conducive to trade in value-added telecommunication services. Basic telecommunications fall outside the scope of the agreement, although NAFTA partners agreed to hold future consultations on broadening the scope of the pact to cover basic telecommunication services and telecommunication infrastructure. The NAFTA assures that value-added service providers will be able to lease lines at flat rates; interconnect private networks and public networks; and use operating protocols of their choice. North American firms will receive the better of MFN or national treatment, and monopolies will be prohibited from anti-competitive practices such as restricting access to the public network and cross-subsidizing (i.e., subsidizing affiliates competing against foreign value-added service providers with revenue derived from the provision of basic services).<sup>15</sup>

Under the General Agreement on Trade in Services (GATS) negotiated during the Uruguay Round, 58 signatories, including the United States, scheduled commitments on value-added services. Consequently, these countries are obliged to accord foreign firms market access, national treatment, and MFN treatment, subject to exemptions explicitly specified in their

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<sup>13</sup> Testimony of Ambassador Jeffrey M. Lang, before the U.S. House of Representatives, Subcommittee on Commerce, Trade, and Hazardous Materials, May 9, 1996.

<sup>14</sup> The Economist Intelligence Unit (EIU), *The EIU European Yearbook 1994-95* (London: EIU, 1995), pp. 101-105.

<sup>15</sup> Gary Clyde Hufbauer and Jeffrey J. Schott, *NAFTA: An Assessment* (Washington, DC: IIE, 1993), pp. 74 -75.

national schedules.<sup>16</sup> Value-added service commitments scheduled by GATS signatories are standstill commitments, which bind the status quo, rather than liberalize trade. Nevertheless, these commitments appear to ensure the continuance of comparatively liberal regulatory environments,<sup>17</sup> reflecting widespread belief that value-added services can be provided on a competitive basis without endangering the public good.

## Objectives of WTO Negotiations on Basic Telecommunication Services

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A Ministerial Decision in the WTO created the Negotiating Group on Basic Telecommunications (NGBT) in April 1994 and mandated the conclusion of talks by April 30, 1996 (subsequently extended by the WTO Secretariat to February 15, 1997). Unlike prior scheduling on value-added telecommunication and nearly all other services, members of the NGBT sought actual liberalization of basic telecommunication markets. Standstill commitments that preserve significant restrictions on competition and foreign ownership would not be acceptable.<sup>18</sup> Within the NGBT, the United States endeavored to obtain a level of openness similar to that achieved in the U.S. market after passage of the Telecommunications Act of 1996. The Act provides for competition in the local, long distance, and international calling markets, through all telecommunication infrastructure (e.g., wireline, radio-based, and cable television), and for 100 percent indirect ownership of U.S. telecommunication firms.<sup>19</sup>

Specific aspects of the U.S. approach were to obtain foreign commitments to market access and national treatment, and foreign adoption of pro-competitive principles. In addition to establishing agreement on common regulatory approaches to basic telecommunications, adoption of pro-competitive principles was necessary to preserve the meaningfulness of value-added service commitments. The Uruguay Round Agreement includes a "Telecommunications Annex" that guarantees access to infrastructure necessary to provide value-added services, but the annex does not impose disciplines in areas such as licensing and interconnection requirements, which significantly affect the competitive position of value-added service providers, as noted earlier. Pro-competitive principles developed in an NGBT reference paper include:

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<sup>16</sup> For a fuller discussion of the GATS, see USITC, *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, publication 2940.

<sup>17</sup> Under the terms of the GATS, signatories are proscribed from imposing new, more onerous trade restrictions in areas where they have scheduled commitments.

<sup>18</sup> GATS signatories did likewise in negotiations on financial services and maritime transport services, which along with basic telecommunication services are sometimes called infrastructure services. Trade impediments in these industries adversely affect all other industries, so WTO members established actual liberalization of these industries as their objective. Financial service negotiations ended July 30, 1995, having achieved an interim agreement which lasts until December 30, 1997. The United States did not find a critical mass of liberalizing offers regarding financial services and, as a consequence, listed a broad MFN exemption and declined to join the agreement. WTO negotiations on maritime transport services concluded June 30, 1996 without an agreement.

<sup>19</sup> Foreign entities may indirectly own 100 percent of U.S. carriers through establishment of a U.S. holding company. There is a limit of 20 percent on direct ownership.

- safeguards against anti-competitive practices, including cross-subsidization, among monopolies or other firms with market power;
- timely and cost-based interconnection under non-discriminatory terms, conditions, rates, and quality;
- transparent and nondiscriminatory universal service requirements<sup>20</sup> 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;
- timely, transparent, and non-discriminatory practices regarding the allocation of scarce resources, such as radio frequencies; and
- publication of international accounting rates.

The ultimate objectives of the NGBT were to benefit telecommunication service suppliers by increasing investment opportunities and establishing competitive markets abroad; benefit telecommunication consumers, including multinational corporations, by achieving lower prices and broader service offerings; and increase business opportunities for manufacturers of telecommunication, computer, and aerospace equipment.<sup>21</sup> In sum, NGBT objectives were to spur global economic growth by encouraging competition.

## April 30 Offers, and U.S. Perspective

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Among its 52 trading partners, the United States identified only 11 high-quality offers by April 30, 1996. High-quality offers were those that would afford U.S. firms unfettered investment rights; access to all basic telecommunication services and facilities, including satellite services and facilities; and pro-competitive regulatory climates by January 1, 1998 (table 1). Most of these were tabled by EU member states, namely Austria, Denmark, Finland, Germany, Luxembourg, the Netherlands, Sweden, and the United Kingdom. Iceland, Norway, and New Zealand also tabled high-quality offers.<sup>22</sup>

U.S. negotiators observed that the offers tabled by some of the remaining EU member states, Japan, and Canada did not adequately achieve trade-liberalizing objectives.<sup>23</sup> In large part, the U.S. reaction stemmed from the investment restrictions that many of these countries retained.

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<sup>20</sup> Universal service requirements generally specify that every citizen should have basic telecommunication service at affordable prices.

<sup>21</sup> Testimony of Ambassador Jeffrey M. Lang, before the U.S. House of Representatives, Subcommittee on Commerce, Trade, and Hazardous Materials, May 9, 1996.

<sup>22</sup> USTR, Statement of Ambassador Charlene Barshefsky, April 30, 1996.

<sup>23</sup> Ambassador Lang testimony, and USTR, "Status of NGBT Offers," electronic mail, July 10, 1996; USTR, "World Trade Organization Basic Telecommunication Talks: Foreign Investment," electronic mail, July 10, 1996; USTR, "World Trade Organization Basic Telecommunication Talks: International Services and Facilities," electronic mail, July 10, 1996; USTR, "World Trade Organization Basic Telecommunication Talks: Supply of Satellite Facilities to Provide Satellite-Based Basic Telecom Services," electronic mail, July 10, 1996; USTR, "World Trade Organization Basic Telecommunication Talks: Regulatory Principles," electronic mail, July 10, 1996.

Table 1  
Offers as of April 30, 1996 in the WTO Negotiating Group on Basic Telecommunications

Country	Foreign investment in all service providers and all facilities	Market access for foreign provision of all services and to all facilities	Foreign access to satellite facilities for provision of satellite-based basic telecommunication services	Pro-competitive regulatory principles
Argentina	100% shares allowable in all services and facilities.	Will allow in 2000.	Will allow in 2000.	Adopted some regulatory principles in reference paper.
Australia	Foreign investment subject to screening, and unspecified limits on investment in Telestra, Voda- phone, and Optus.	Will allow in 1998, contingent on legislative approval.	Foreign access to services and facilities subject to investment screening.	Adopted reference paper on regulatory principles in entirety.
Austria	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Belgium	Limited to 49% share for services and facilities, and number of service suppliers limited.	Will allow in 1998.	Will allow foreign access to domestic services and facilities in 1998, but offers no commitment on international satellite services. Also, the 49% investment limit applies.	Adopted reference paper on regulatory principles in entirety.
Brazil	100% shares allowable in private networks. Limited to 49% share except for cellular and satellite-based service providers.	Foreign service provision limited to closed user groups (i.e., private networks), but will bind future, potentially trade-liberalizing legislation.	Will allow access to services and facilities in 1998, but suppliers of licensed services are required to use Brazilian space segment if available on equivalent terms and conditions. Also, the 49% investment limit applies.	May adopt reference paper in future, based on legislative reform.
Canada	Limited to 46.7% share for all services.	Will allow in 1998.	Will allow in 2002, and may require Canadian voting equity in mobile satellite systems.	Adopted reference paper on regulatory principles in entirety.
Chile	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted own regulatory principles.
Colombia	Foreign investment subject to government discretion.	Subject to economic needs test.	No commitment.	Adopted own regulatory principles.
Czech Republic	100% shares allowable in all services and facilities.	Will allow in 2001.	Will allow in 2001.	Adopted reference paper on regulatory principles in entirety.

Table 1--continued

Offers as of April 30, 1996 in the WTO Negotiating Group on Basic Telecommunications

Country	Foreign investment in all service providers and all facilities	Market access for foreign provision of all services and to all facilities	Foreign access to satellite facilities for provision of satellite-based basic telecommunication services	Pro-competitive regulatory principles
Denmark	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Dominican Republic	No commitment.	No commitment.	No commitment.	Declined to adopt any regulatory principles.
Ecuador	100% shares allowable in cellular services only.	No commitment.	No commitment.	Declined to adopt any regulatory principles.
Finland	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
France	Limited to 20% share in radio-based networks and limited investment in France Telecom.	Will allow in 1998.	Foreign ownership limited to 20% in radio-based networks.	Adopted reference paper on regulatory principles in entirety.
Germany	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Greece	100% shares allowable in all services and facilities.	Will allow in 2003.	Will allow in 2003.	Adopted reference paper on regulatory principles in entirety.
Hong Kong	100% shares allowable in all services and facilities, but local wireline and wireless network services limited to current 4 providers.	Foreign service provision limited to resale of data and fax, call-back, and closed user groups. No commitment on local and international public wireline and wireless services and facilities, even after expiration of Hong Kong Telecom's exclusive rights in 2006.	Will allow provision of mobile satellite services and provision of external satellite circuits by a company or closed user group in 1998. Interconnection to public switched network in Hong Kong will not be permitted.	Adopted reference paper on regulatory principles in entirety.
Hungary	Limited to 75% share in all services and facilities.	Will allow in 2002, with exception of cellular and satellite services and facilities.	Foreign ownership of satellite services and facilities limited to 75%.	Adopted reference paper on regulatory principles in entirety.

Table 1--continued

Offers as of April 30, 1996 in the WTO Negotiating Group on Basic Telecommunications

Country	Foreign investment in all service providers and all facilities	Market access for foreign provision of all services and to all facilities	Foreign access to satellite facilities for provision of satellite-based basic telecommunication services	Pro-competitive regulatory principles
Iceland	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
India	Limited to 25% share in all services and facilities, rather than existing 49% limit.	No commitment. Licenses may be issued based on economic needs testing.	No commitment.	Declined to adopt any regulatory principles.
Ireland	100% shares allowable in all services and facilities.	Will allow in 2000.	Will allow in 2000.	Adopted reference paper on regulatory principles in entirety.
Israel	100% shares allowable in domestic wireline services. Limited to 80% for cellular services and 74% for international services.	No commitment.	No commitment.	Adopted some of the reference paper on regulatory principles.
Italy	100% shares allowable in all services and facilities, with the exception of state-owned Stet.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Ivory Coast	100% shares allowable in all services and facilities.	Foreign firms limited to following services and facilities: analog cellular services, personal communication services, mobile services, and non-voice satellite-based services. Excluded from voice and telex services.	Will allow in 1998, although foreign firms will be allowed to provide non-voice services only.	Adopted reference paper on regulatory principles in entirety.
Japan	100% shares allowable in all services and facilities, with exception of NTT and KDD, for which there are 20% limits.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Korea	Limited to 20% share for Korea Telecom, and to 33% for all other service providers.	Will allow in 1998.	No commitment.	Adopted reference paper on regulatory principles in entirety.
Luxembourg	100% shares allowable in all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.



Table 1--continued  
Offers as of April 30, 1996 in the WTO Negotiating Group on Basic Telecommunications

Country	Foreign investment in all service providers and all facilities	Market access for foreign provision of all services and to all facilities	Foreign access to satellite facilities for provision of satellite-based basic telecommunication services	Pro-competitive regulatory principles
Mauritius	100% shares allowable in all services and facilities.	Will allow foreign provision of voice, data, telex, and telegraph services in 2004.	No commitment.	Adopted reference paper on regulatory principles in entirety.
Mexico	100% shares allowable for fax and private leased line services. Limited to 30% for wireline services, and 40% for cellular services, despite the current 49% limit for all services.	Will allow in 1998 with the exception of satellite-based services.	No commitment.	Adopted own regulatory principles.
Morocco	No commitment.	Unclear. Appears to provide for foreign provision of domestic packet switched data, mobile, paging, and personal communication services.	No commitment.	Declined to adopt any regulatory principles.
Netherlands	100% shares allowable for all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
New Zealand	100% shares allowable for all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Norway	100% shares allowable for all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Pakistan	100% shares allowable for all services, but no commitment to extend national treatment.	Will allow foreign provision of domestic data, telex, and fax services.	No commitment.	Declined to adopt any regulatory principles.
Peru	100% shares allowable for all services and facilities.	Will allow in 1999.	Will allow in 1999.	Adopted some of the reference paper on regulatory principles.
Philippines	Limited to 40% for all services.	Subject to an economics need test.	No commitment.	Adopted own regulatory principles.

Table 1--continued

Offers as of April 30, 1996 in the WTO Negotiating Group on Basic Telecommunications

Country	Foreign investment in all service providers and all facilities	Market access for foreign provision of all services and to all facilities	Foreign access to satellite facilities for provision of satellite-based basic telecommunication services	Pro-competitive regulatory principles
Poland	100% shares allowable for wireline voice and data services, but limited to 49% for wireless, international and long distance voice and data services.	No commitment.	No commitment..	Adopted reference paper on regulatory principles in entirety.
Portugal	General 25% limit and unspecified limit on privatized telecommunication firms.	Will allow in 2003.	Will allow in 2003, subject to the 25% investment restriction.	Adopted reference paper on regulatory principles in entirety.
Singapore	100% shares allowable for domestic and international switched resellers, but 49% limit for wireline and wireless services and facilities.	Will allow in 2002.	Will allow in 2002.	Adopted reference paper on regulatory principles in entirety.
Slovak Republic	Limited to 40% for digital cellular services.	Will allow in 2003.	Will allow in 2003.	Adopted reference paper on regulatory principles in entirety.
Spain	Limited to 25% for facilities-based satellite or radio-based network.	Will allow in 2003.	Will allow in 2003, subject to the 25% investment restriction.	Adopted reference paper on regulatory principles in entirety.
Sweden	100% shares allowable for all services and facilities	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Switzerland	Currently 100% shares allowable for closed user groups only, but may bind future legislation that would permit 100% for all services and facilities.	Will allow foreign provision of data, telex, telegraph, and fax services; private leased lines; and services within closed user group services. May bind future legislation that would allow full access to all services by 1998.	No commitment.	Adopted reference paper on regulatory principles in entirety.
Thailand	Limited to 20% for local voice services only.	No commitment.	No commitment.	Declined to adopt any regulatory principles.
Turkey	No commitment.	No commitment.	No commitment.	Declined to adopt any regulatory principles.

Table 1--continued

Offers as of April 30, 1996 in the WTO Negotiating Group on Basic Telecommunications

Country	Foreign investment in all service providers and all facilities	Market access for foreign provision of all services and to all facilities	Foreign access to satellite facilities for provision of satellite-based basic telecommunication services	Pro-competitive regulatory principles
United Kingdom	100% shares allowable for all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
United States	100% shares allowable for all services and facilities.	Will allow in 1998.	Will allow in 1998.	Adopted reference paper on regulatory principles in entirety.
Venezuela	100% shares allowable for all services and facilities.	Will allow in 2000.	Will allow in 2000.	Declined to adopt any regulatory principles.

Source: Office of the United States Trade Representative.

France and Italy maintained unspecified restrictions on foreign investment in their dominant carriers, France Telecom and Stet. Belgium, Spain, and Portugal set foreign ownership limitations below 50 percent for all basic telecommunication service providers. Japan places foreign ownership caps of 20 percent on NTT and KDD, two of the largest telecommunication service providers in the world, and Canada retains a foreign investment cap of 47 percent on its carriers.<sup>24</sup> In addition, offers tabled by Belgium, France, Spain, and Portugal limited U.S. firms' ability to provide satellite-based services in their markets. Four EU member states indicated that they would introduce liberalization after 1998. Ireland would liberalize access to its basic telecommunications market 2 years after the scheduled implementation date, and Greece, Spain, and Portugal would begin to liberalize their markets a full 5 years after others.<sup>25</sup>

U.S. negotiators also indicated that the offers tabled by ASEAN members<sup>26</sup> and certain other East Asian countries failed to achieve market liberalization. Indonesia and Malaysia declined to make offers. The Philippines indicated it would cap foreign investment in basic telecommunication service providers and facilities at 40 percent, and condition market access on an economic needs test.<sup>27</sup> Singapore would not open its market until 2002, and would restrict foreign ownership of basic telecommunication service providers and facilities to 49 percent. U.S. negotiators indicated that Singapore's offer was difficult to accept in light of Singapore Telecom's \$1-billion investment in overseas telecommunication firms. Thailand's offer restricted foreign investment in basic telecommunication service providers and facilities to 20

<sup>24</sup> Ibid.<sup>25</sup> Ibid.<sup>26</sup> The Association of Southeast Asian Nations (ASEAN) includes Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Brunei held observer status during the talks, whereas the latter five participated in the basic telecommunication negotiations.<sup>27</sup> In general, economic needs tests assess the impact of new market entrants on the indigenous industry. Such assessments may result in negative determinations if market entry is considered likely to have a detrimental effect on market structure, profitability, population density, geographic distribution, or job creation. Thresholds regarding these criteria are subjective and largely non-transparent, allowing regulators to exercise broad discretion with respect to granting market access.

percent, and specified no commitments regarding market access. Korea, too, maintained onerous investment restrictions, while India's offer failed even to bind the status quo, reducing foreign investment caps from 49 percent to 25 percent. India also indicated that, like Thailand, it would condition foreign firms' market access on economic needs tests. Among the Asian countries discussed above, only Singapore and Korea adopted pro-competitive regulatory principles in their entirety.<sup>28</sup>

## Noteworthy Achievements

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Some developing regions, however, tabled offers that appeared to achieve significant progress in terms of market liberalization. Nine Latin American countries<sup>29</sup> and four East European countries<sup>30</sup> submitted such offers. U.S. negotiators report that most of these offers provided reasonable investment climates and market access in light of the countries' level of economic development.<sup>31</sup>

In a broader context, the NGBT as a whole posted some significant achievements. Twenty-two foreign countries tabled commitments allowing foreign firms to acquire 100 percent of basic telecommunication service providers and facilities. Twenty-one additional countries specified at least some level of permissible foreign ownership. Twenty countries will allow foreign firms to provide all basic telecommunication services by 1998, and 10 others will phase-in this right by a date certain. Fifteen countries will permit foreign firms to provide basic telecommunication services via satellite by 1998, and eight additional countries will phase-in this right in the several years following 1998. Most striking of all, perhaps, is that 32 countries tabled offers that adopted pro-competitive regulatory principles in their entirety.<sup>32</sup> Broad interest in preserving these achievements motivated NGBT members to extend negotiations though February 1997 rather than terminate discussions without agreement.

## The Road Ahead

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In light of the consensus for preserving the achievements of the negotiations, the WTO Council on Trade in Services adopted the Decision on Commitments in Basic Telecommunications on April 30, 1996. The Decision established the one-month period, from January 15 to February 15, 1997, during which members may change their offers and list MFN exemptions, if any. In addition, the Decision disbanded the NGBT and replaced it with the Group on Basic Telecommunications (GBT) to provide for consultations through the period ending in February 1997.<sup>33</sup>

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<sup>28</sup> Ambassador Lang testimony, and USTR electronic mail messages, July 10, 1996.

<sup>29</sup> Latin American countries that submitted offers include Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, Peru, and Venezuela.

<sup>30</sup> East European countries that submitted offers include the Czech Republic, Hungary, the Slovak Republic, and Poland.

<sup>31</sup> Ambassador Lang testimony.

<sup>32</sup> USTR electronic messages, July 10, 1996.

<sup>33</sup> USTR, "Singapore WTO Trade Ministerial Preparation," June 13, 1996; and U.S. Department of State telegram, "WTO Basic Telecom Negotiations: Extension," message reference No. 3124, prepared by U.S. Mission Geneva, May 2, 1996.

Consultations will be used to obtain more high-quality offers, and to resolve safeguard issues. Bilateral discussions held by the GBT indicate that a number of foreign offers may improve by year-end 1996. The enactment of pending telecommunications reform legislation in Australia, Brazil, Switzerland, and Thailand may improve the offers submitted by these countries. In addition, it is reported that market reform in Egypt and South Africa may allow these countries to submit offers before negotiations conclude. Last, Chile and Malaysia, which already allow competition in their domestic markets, may be persuaded to submit offers that improve foreign firms' market access.<sup>34</sup>

The most significant issue in need of resolution before February pertains to safeguards. GBT members desire safeguards so that competition in the home market is not distorted after a basic telecommunications agreement takes effect on January 1, 1998. In practice, safeguards entail licensing procedures that permit countries to deny market access to firms that might distort competition. Firms with domestic markets that are already competitive, like the United States, the United Kingdom, and New Zealand, are concerned that firms from non-liberalized markets will distort either incoming traffic through the use of resold international private lines, or outgoing traffic by establishing affiliates inside their borders.

To assuage these concerns, GBT countries will endeavor to craft mutually agreeable, MFN-consistent licensing criteria by 1997. Attempts to craft such language in April 1996 reached an impasse over three issues. GBT members were not agreed on which types of firms should be covered by special licensing procedures. The EU and certain other countries held the view that such procedures should apply only to monopolies, whereas the United States favored applying licensing procedures to monopolies and "dominant carriers;" i.e., de facto monopolies that will persist until competitive conditions prevail in markets previously served by one telecommunications firm. There were also differences regarding when the licensing decision should be rendered. The EU and most other countries maintained that the licensing decision should be made on the basis of evidence gathered after market entry, whereas the United States maintained that licensing decisions should precede market entry. Last, there were different perspectives regarding the types of traffic that should be covered when assessing the potential for market distortion. The EU favored licensing procedures that would assess the potential for distortion of incoming traffic only, whereas the United States favored licensing procedures that would assess the potential for distortion of both incoming and outgoing traffic.<sup>35</sup>

## Conclusion

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The WTO did not conclude negotiations on basic telecommunication services on April 30, and the difficulty of the task ahead is immense, perhaps insurmountable. Yet, the talks are an essential endeavor, and have effected significant achievements. The need to address basic telecommunication services in a multilateral context is principally the result of rapid technological advances, rather than a philosophically grounded preference. The swift dissemination of new technology has changed the configuration of virtually all telecommunication networks, especially in developed countries; enabled the provision of a broad

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<sup>34</sup> U.S. Department of State telegram, "WTO Basic Telecom Negotiations: Extension," message reference No. 3124, prepared by U.S. Mission Geneva, May 2, 1996.

<sup>35</sup> Ibid.

range of new services; introduced significant market-distorting practices; and antiquated regulatory systems that appeared reasonable and feasible just 10 or 15 years ago. By actively participating in negotiations, 48 countries have recognized the futility of regulating individually a globally integrated network that serves as the backbone of the global information economy. The efficiency and robustness of this network significantly influences global economic growth.

Equally, 48 countries have recognized that the best way to promote national competitiveness in economies centered around the gathering, processing, and transmission of information is to liberalize the market for basic telecommunication services. Toward this end, a significant number have offered to schedule lasting commitments that provide foreign firms with effective market access and national treatment. This is not an inconsequential achievement in two years' time.

Nonetheless, there is intrinsic difficulty in concluding these negotiations. The WTO is asking many countries to move from one end of the regulatory spectrum, characterized by state-owned monopolies, which often help to fund governments through receipt of international settlement payments and high service charges, to the other end, characterized by perfect competition in basic telecommunication services and facilities. It is difficult for most governments to loosen reigns on sectors of the economy they believe to be crucial to economic growth and welfare. Furthermore, because they believe this sector to be vital, many are asking for the institution of safeguards, which are traditionally difficult to fashion in a mutually acceptable manner. Last, one must not forget the technical nature of the discussions, and the continuously rapid evolution of technology, which changes the parameters and nomenclature of the industry even as talks proceed. ■

# U.S. Film Industry: How Mergers and Acquisitions are Reshaping Distribution Patterns Worldwide

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*The major entertainment and information firms of the globe are anticipating an expanded multimedia age. They may remain uncertain as to what form it will take, but they are placing themselves to profit from it. The large merger, acquisition, and investment activities within the entertainment and information groups during the past 5 years reflect attempts by these companies to fulfill their particular vision of the future. This article describes the structure and economics of the film industry, recent mergers and acquisitions, and the prominence of global distribution in the film industry. In addition, the article discusses efforts within the World Trade Organization (WTO) to eliminate trade barriers in audiovisual services.*

U.S. visitors to Taiwan 25 years ago were sometimes surprised to turn on their hotel television sets and to find *Bonanza* playing on the local television network, with Hoss, Little Joe and their Ponderosa colleagues all speaking fluent Mandarin Chinese. By 1989, an estimated 200 million individuals in the People's Republic of China tuned in each Sunday to see The Walt Disney Company's *Mickey and Donald*. In that same year U.S.-made programs constituted as much as 40 percent of the 125,000 hours of programming that aired on the television stations of the (then) 12 nations of the European Community.<sup>1</sup> It is reported that the most popular television show in Vietnam currently is the 1970s adventure series *Charlie's Angels*.<sup>2</sup> Wherever one travels, from Ulan Bator to the U.S. science research base at the South Pole, the chances are that the latest news and weather can be received from the Turner Cable News Network (CNN), based in Atlanta.

These are but a few examples of the strong global demand for U.S. global audiovisual works, films in particular. U.S.-made films now account for about 80 percent of gross box office revenues outside the United States, and for 95 percent domestically.<sup>3</sup> Table 1 shows the U.S. position in the global motion picture industry in 1994. Of \$23 billion in global sales, 60 percent was generated by the U.S. domestic market and 40 percent by foreign markets, with the

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<sup>1</sup> "Invasion of the Studio Snatchers," *Business Week*, Oct. 16, 1989, p. 53.

<sup>2</sup> "Star Struck," *Far Eastern Economic Review*, Jan. 1996, p. 65.

<sup>3</sup> "You're Not in Kansas Anymore," *The Economist*, Feb. 4, 1995, p. 57.

European Union (EU) constituting a bit more than one-half of the latter. The global industry picture demonstrates the relative economic importance of different venues for film, with home video sales<sup>4</sup> setting the pace for all media.

**Table 1**  
**Estimated worldwide revenues by media for all U.S. motion picture companies, 1994**

Region	Box office	Television	Pay-TV	Home video	All media
Global sales ( <i>million dollars</i> )	4,810.8	7,983.7	1,889.1	8,749.8	23,433.4
U.S. sales ( <i>million dollars</i> )	2,400.4	5,319.3	1,257.2	5,114.7	14,091.6
U.S. share of global sales ( <i>percent</i> )	49.9	66.6	66.5	58.5	60.1
Foreign sales ( <i>million dollars</i> )	2,410.4	2,664.3	631.9	3,635.1	9,341.7
Foreign share of global sales ( <i>percent</i> )	50.1	33.4	33.5	41.5	39.9
European Union (EU) ( <i>million dollars</i> )	1,106.2	1,703.8	378.1	1,806.4	4,994.5
EU share of global sales ( <i>percent</i> )	45.9	64.0	59.8	49.7	53.5

Note.—Figures may not add to totals shown due to rounding.

Source: Motion Picture Association of America (MPAA), MPAA Worldwide Market Research, June 5, 1995.

## The Economics of the Film Industry<sup>5</sup>

Seven Hollywood film production studios account for about 85 percent of box office film gross revenues worldwide. The studios are Walt Disney, Metro-Goldwyn-Mayer/United Artists (MGM/UA), Paramount, Sony Pictures Entertainment (formerly Columbia), Twentieth Century Fox, Universal, and Warner Brothers. A typical studio employs a staff of from 2,000 to 3,000 workers, including chauffeurs and ground keepers. From 400 to 450 new films are released in the United States each year, with about 160 of these becoming “major” films. Two of three never recover their production costs, even after being sold for use in cable television and home video. In 1988, the studios’ major films each cost \$18.1 million to produce and another \$8.5 million to distribute. By 1995, the average of these combined costs had risen to \$50 million.<sup>6</sup> Production costs are inflated by the scarcity of actors and actresses who can guarantee enough publicity to open a film successfully at the box-office,<sup>7</sup> and the even greater scarcity of producers who consistently produce box-office successes.

Nothing can guarantee box-office hit movies, so the few big successes must subsidize the many failures.<sup>8</sup> The profitability of film studios fluctuates widely from year to year, depending on

<sup>4</sup> Home video means the rental or buying of entertainment/information for home use.

<sup>5</sup> Much of the data for this section is taken from “You’re not in Kansas any more,” *The Economist*, Feb. 4, 1995, pp. 57-59.

<sup>6</sup> “Matsushita and Hollywood: Retreat from Tinseltown,” *The Economist*, Apr. 8, 1995, p. 59.

<sup>7</sup> One estimate is that only 15 such stars exist. *Ibid.*

<sup>8</sup> “You’re not in Kansas anymore,” 57-59.



their production of films that become popular successes. Domestic box-office revenues<sup>9</sup> are often loss-leaders, merely generating the desired publicity for a film's later release to other outlets, and accounting for just 17 percent of a film distributors' ultimate revenue. However, box-office revenues serve as a reliable sounding board for the potential generation of downstream revenues by sales to foreign box offices, to cable and pay television, and to home-video rentals and sales.<sup>10</sup>

Most important home video sales and rentals now bring in some 37 percent of Hollywood's revenues.<sup>11</sup> A spectacular example of the importance of home-videos is the 1950s film *White Christmas*. When released for home video in the mid-1980s, it promptly made more money than it had previously garnered in 30 years. *Snow White*, a 60-year-old cartoon, did even better. Released in 1994 for home-video, it is estimated to have earned the Disney studios some \$500 million.<sup>12</sup>

## Mergers, Acquisitions, and the Revolution in Film Distribution

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The vertical integration of film production companies, television networks, book publishing, important newspapers, multiplex theater chains, theme parks, studio stores, music-recording companies and libraries, telephone companies, fiber optic networks, and cable and satellite distribution networks is proceeding at a dizzy pace.<sup>13</sup> Consequently, the worldwide film industry must see itself as being at the beginning of a technological revolution, particularly in the manner that films and other media are distributed.

The "product" of these huge conglomerates is news, information, ideas, entertainment and, perhaps, popular culture.<sup>14</sup> As one prospective sequence for the alleged synergies that are possible suggests:

*Giant Corporation Inc. owns subsidiaries in every medium. One of its magazines buys (or commissions) an article that can be*

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<sup>9</sup> Within the United States, studios retain from 52 to 55 percent of box-office revenue; abroad the studios receive only about 43 percent, mostly because of foreign exchange controls and other barriers.

<sup>10</sup> According to *Variety*, a trade paper, Warner, Sony and Universal Studios took more from foreign box-office gross revenues than domestic ones in 1994. Also see, "You're not in Kansas anymore," 57-59.

<sup>11</sup> Motion Picture Association of America (MPAA), MPAA Worldwide Market Research, June 5, 1995.

<sup>12</sup> "You're not in Kansas anymore," 57-59.

<sup>13</sup> See, for example, Mark Crispin Miller, "Free the Media," *The Nation*, June 2, 1996, pp. 9-28.

<sup>14</sup> Critics of the relaxation of U.S. monopoly and antitrust rules over the last decade sometimes argue that media monopolies are more dangerous than some others due to the importance of public communication to the overall political process. See, for example, Miller, "Free the Media." The converse argument is that the explosive global growth of new cable channels and other entertainment and information outlets makes monopolization of the distribution of political and other content impossible.

*expanded into a book, whose author is widely interviewed in the company magazines and on its broadcast stations. The book is turned into a screenplay for the company movie studios, and the film is automatically booked into the company's chain of theaters. The movie has a sound track that is released on the company record label. The vocalist is turned into an instant celebrity by cover features in the company magazines and interviews on its television stations. The recording is played on the company's chain of Top 40 radio stations. The movie is eventually issued by the firm's videocassette division and shown on company television stations. After that, rerun rights to the movie are sold to other television stations around the world.<sup>15</sup>*

The seven major U.S. film studios began to form the bases of the vertically integrated media and communications empires 10 years ago. This evolution has not been smooth and has been marked by merger and acquisition activity, involving billions of dollars in debt incurred by all seven of the corporations, as indicated in the more detailed annex at the end of this article. The shape, pace and size of these mergers have been astounding. For example, within a very short time period in late 1995, the Walt Disney Co. bought the Capital Cities/ABC television and radio networks for \$19 billion (covering 25 percent of U.S. households);<sup>16</sup> Westinghouse bought the CBS television and radio networks for \$5.4 billion; and Time-Warner (parent of Warner Brothers studios), which also owns a large television production operation, major book and magazine publishing firms, initiated an attempt to buy Turner Broadcasting. The latter would include the huge cable operations of CNN, Cartoon Network, and TNT.<sup>17</sup> Table 2 shows most of the expanding scope of information/communication/entertainment companies owned by four large U.S. firms.

### ***Back to the Future***

The trend begun by Rupert Murdoch in 1984 towards control of film and entertainment distribution as well as production, appears to move the other major film studios to react by imitation. Some industry sources liken this course as a return to the early days of movie production, when studios built large, lavish theaters in major population centers to encourage public participation in the new entertainment medium and to guarantee that all their products would be marketed well. Studios also used market leverage to encourage independent theater owners to sign contracts whereby they received both some block-buster hits as well as less popular films. Independent theater owners signed these contracts in order to be assured of a

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<sup>15</sup> Ben H. Bagdikian, "Conquering hearts and minds: the lords of the global village," *The Nation*, June 12, 1989, p. 20.

<sup>16</sup> Disney also owns the sports cable network ESPN, 11 newspapers, a number of theme-park resorts, and several major magazines. See table 2.

<sup>17</sup> "Wall Street Tunes In to Hollywood, Leaving the Dow and Tech Stocks Sputtering," *Barron's*, Aug. 7, 1995, p. MW3.

**Table 2**  
 Partial listing of the entertainment, communications, and publication enterprises of four U.S. companies, 1996

	Disney/Capital Cities	General Electric	Time-Warner	Westinghouse
<b>Motion picture and film production</b>	Walt Disney Pictures Touchstone Pictures Hollywood Pictures Miramax Film Corp. Buena Vista Pictures		Warner Brothers Studio Warner Brothers Animation  <b>TV Programming:</b> Warner Brothers Television Witt Thomas Productions	
<b>Television</b>	ABC Television Network  ABC Video  ABC Network News: Good Morning America Good Morning America (Sunday) Nightline PrimeTime Live This Week with David Brinkley 20/20 World News Now World News This Morning World News Tonight World News Tonight with Peter Jennings  <b>Cable:</b> Disney Channel Disney Television Touchstone Television A&E Lifetime Network ESPN ESPN2 Buena Vista Television Various TV stations  <b>TV Stations:</b> KABC--Los Angeles KFSN--Fresno KGO--San Francisco KTRK--Houston WABC--New York WJRT--Flint WLS--Chicago WPVI--Raleigh/ Durham WTVG--Toledo	NBC Television Network  NBC Network News: Dateline NBC Meet the Press NBC News at Sunrise NBC Nightly News with Tom Brokaw Nightside The Today Show Weekend Today  <b>Cable:</b> A&E American Movie Classics America's Talking Bravo CNBC Court TV  <b>TV Stations:</b> KNBC--Los Angeles WCAU--Philadelphia WCMH--Colombus WJAR--Providence WMAQ--Chicago WNBC--New York WNCN--Raleigh/ Durham WRC--D.C. WTVJ--Miami	<b>Cable:</b> CNN/SI (forming) Cinemas Comedy Central E! HBO HBO Direct Broadcasting Sega Channel  <b>Turner Broadcasting Cable:</b> Cartoon Network CNN CNN Airport Network CNN International CNNfn Headline News Sportsouth TBS Superstation TNT Turner Classic Movies	CBS Television Network  CBS Network News: CBS Evening News with Dan Rather CBS Morning News CBS New Sunday Morning CBS This Morning Face The Nation 48 Hours 60 Minutes Up to the Minute  <b>Cable:</b> CMT: Country Music Television Home Team Sports TNN: The Nashville Network  <b>TV Stations:</b> KDKA--Pittsburgh KCBS--Los Angeles KCNC--Denver KPIX--San Francisco KUTV--Salt Lake City KYW--Philadelphia WBBM--Chicago WBZ--Boston WCBS--New York WCCO--Minneapolis WFOR--Miami WFRV--Green Bay WJZ--Baltimore WWJ--Detroit

**Table 2--Continued**  
**Partial listing of the entertainment, communications, and publication enterprises of four U.S. companies, 1996**

	Disney/Capital Cities	General Electric	Time-Warner	Westinghouse
<b>Printed publications</b>	Chilton Publications Fairchild Publications Hypersion Books L.A. Magazine Institutional Investor Disney Publishing Inc.		Book-of-the-Month Club Little, Brown & Co. Oxmoor House Sunset Books Time-Life Books Warner Books American Lawyer <i>Asia Week</i> <i>Baby Talk</i> <i>Cooking Light</i> <i>DC Comics</i> <i>Dancyu</i> <i>Entertainment Weekly</i> <i>Fortune</i> <i>Health</i> <i>Hippocrates</i> <i>In Style</i> <i>Life</i> <i>Martha Stewart Living</i> <i>Money</i> <i>Parenting</i> <i>People</i> <i>President</i> <i>Southern Living</i> <i>Sports Illustrated</i> <i>Sports Illustrated for Kids</i> <i>Sunset</i> <i>Time</i> <i>Vibe</i> <i>Who</i>	
<b>Radio</b>	ABC Radio	NBC Radio	Turner Broadcasting/ CNN: CNN Radio	CBS Radio
<b>Other</b>	<b>Home video:</b> Buena Vista  <b>Multimedia:</b> Americast ABC Online Disney Interactive Disney Com  <b>Music:</b> Hollywood Records Wonderland Music Walt Disney Records		Time Warner Entertainment Six Flags  <b>Home Entertainment:</b> Domestic Home Video Turner Home Entertainment Turner Home Satellite  <b>Home video:</b> HBO Home Video Time-Life Video Warner Home Video	<b>Communications and Information:</b> Telephone, network and wireless communications systems; security systems

Table 2--Continued  
 Partial listing of the entertainment, communications, and publication enterprises of four U.S. companies, 1996

	Disney/Capital Cities	General Electric	Time-Warner	Westinghouse
Other-- Continued	<p><b>Newspapers:</b>                      Fort Worth Star-Telegram                      Kansas City Star                      St. Louis Daily Record                      Narragansett Times                      Oakland Press and Reminder                      County Press                      Times-Leader                      Belleville News-Democrat                      Albany Democrat                      Daily Tidings                      Sutton Industries                      Penny Power</p> <p><b>Retail:</b>                      Disney stores                      Childcraft Education</p> <p><b>Sports:</b>                      Mighty Ducks                      California Angels</p> <p><b>Theme parks/resorts:</b>                      Disneyland                      Walt Disney World Resort                      Disneyland Paris                      Tokyo Disneyland                      Disney Vacation Club                      WCO Vacationland Resorts                      Disney Institute                      Celebration                      Disney Cruise Line</p>		<p><b>Multimedia:</b>                      CNN Interactive                      Turner New Media</p> <p><b>Music:</b>                      The Atlantic Group                      Columbia House                      Elektra Entertainment Group                      SupPop                      Warner Brothers Record                      Warner Music International                      Warner/Chappell Publishing</p>	

Source: Miller, Mark Crispin, "Free the Media," *The Nation*, June 3, 1996, pp. 9-15 and center pages.

constant and reliable supply of films.<sup>18</sup> Thus, the distribution question is still a key concern for entertainment companies. The interesting question is whether and when evolving global satellite transmission technology might alter this distribution pattern.

<sup>18</sup> Ian Jarvie, *Hollywood's Overseas Campaign: The North Atlantic Movie Trade, 1920-1950*, (New York: Cambridge University Press, 1992), p. 181ff.

In any case, both production and distribution of films, entertainment, and information is clearly undergoing a major worldwide restructuring.<sup>19</sup> With the tremendous increases in air time available from cable, satellite, and home videos, distributors need products if they hope to sell to advertisers or film buyers. Hollywood is the treasure-trove of past and current products, which explains why both foreign and domestic investment has been especially vibrant for the past 10 years. The simple truth is that it is probably cheaper to buy into an existing studio for perhaps \$5-10 billion (complete with studio libraries) than to begin a new one.<sup>20</sup>

Moreover, these studios have decades-long contracts with distribution networks around the world. The many thousands of theater owners/operators and television executives from New York to Beijing know them as reliable sources of product. Such distribution networks are expensive to establish in terms of both time and money, especially in foreign markets where factors such as culture, language, and foreign exchange problems can become hugely complex.<sup>21</sup> Any new major studio would somehow have to solve a large distribution problem. The newest announced studio, DreamWorks, established in 1995 by three of Hollywood's most successful executives, is still in its infancy. How it solves its domestic and foreign distribution question interest potential new investors in the global film industry.<sup>22</sup>

## **The Movies and International Trade Negotiations**

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The term "audiovisual services" is the technical name used in international trade negotiations to discuss film, music, broadcasting rights, projection services and other production and distribution services dealing with entertainment and information. Negotiations about audiovisual service trade barriers were contentious at the Uruguay Round that created the WTO. From the U.S. industry's viewpoint, negotiations on audiovisual services were never satisfactorily completed,<sup>23</sup> mostly because a provision allowing the EU-member states to maintain a requirement that 51 percent of their domestic television broadcasts be made in Europe.<sup>24</sup> France was the EU-member state most adamant in refusing to eliminate such trade

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<sup>19</sup> Japan, for example, deregulated its cable satellite rules in 1994, which was part of the impetus for some of the Japanese direct foreign investment in Hollywood.

<sup>20</sup> USITC staff telephone interviews with film industry executives, Apr 16, 1996.

<sup>21</sup> For an illustrative example, see "1 Country, 2 Wabbits: Getting Bugs Bunny to China wasn't exactly kids' stuff," *Far Eastern Economic Review*, May 23, 1996, p. 68.

<sup>22</sup> *Ibid.*

<sup>23</sup> For additional information, see U.S. International Trade Commission (USITC), *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, Investigation No. 332-358, USITC publication 2940, December 1995, p. 5-20.

<sup>24</sup> There are several exceptions allowed in the EU policy, the largest of which is a loophole saying "if practicable." The European Parliament closed this loophole formally, at French insistence, in February 1996, but left to EU-member states to endorse before it becomes binding, a result considered unlikely. In Germany, for example, a court has outlawed mandatory quotas. A recent study by the l'Observatoire Europeen de l'Audiovisuel, a Strasbourg-based trade group, showed that 69 percent of films on 88 European channels surveyed in 1994 were made in the United States. Moreover, in the United Kingdom, the premier television channel BBC1 did not show any French, German, or Italian films in 1994, and 91 percent of the films shown on the British ITV channel was

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barriers, asserting that European languages and culture had to be protected from what it saw as an onslaught of U.S. film and television programming.<sup>25</sup> French law is detailed as to what is allowed; for example:

*Current legislation mandates that 40% of (a) the number of feature films and (b) the transmission time allocated to audiovisual works broadcast be of French origin . . . an additional 20% must be of EU origin . . . also [there is a] quota for feature films, which is currently set at 192 per channel per year. This number may not exceed 104 between 8:30 p.m. and 10:30 p.m. in each calendar year. Moreover, feature films may not be screened [on television] on Wednesday and Friday evenings . . . . Feature films may not be screened [on television at any time] on Saturday, and on Sunday, they may only be screened after 8:30 p.m.<sup>26</sup>*

Hollywood argued that such restrictions were contrary to the spirit of liberalization in international trade in services and should be eliminated or phased-out over time. The negotiation collapsed when the EU made no commitments to accord market access and national treatment for audiovisual works (including films) produced outside the EU. Moreover, the EU listed no less than eight sweeping, broadly worded most-favored-nation (MFN) exemptions for such trade in its schedule of commitments, all for indefinite time periods.<sup>27</sup> One exemption applies to all audiovisual services. The actual measures accompanying the exemption are not identified explicitly, but they are intended to “prevent, correct, or counterbalance adverse, unfair, or unreasonable conditions or actions affecting EC [EU] audiovisual services, products or service providers.” Conditions for imposing the exemption are left equally vague, indicating a “need to protect” the EU and member states from “adverse, unfair, or unreasonable unilateral actions.” Another exemption, which applies to the distribution of audiovisual works, indicates that redressive duties may be imposed in response to “unfair pricing practices,” which may cause “serious disruption” to the distribution of European works.<sup>28</sup> Canada also made no commitments in the GATS negotiation for liberalization of trade in audiovisual services, citing

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<sup>24</sup> (...continued)

U.S. made. Overall, U.S. movies account for 80 percent of cinema receipts in the EU. *Washington Times*, Feb. 15, 1996, p. B9.

<sup>25</sup> Canada is another major U.S. trading partner that vociferously tries to protect its domestic market from U.S. audiovisual influence.

<sup>26</sup> The U.S. Motion Picture Association (MPAA), *Trade Barriers to Exports of U.S. Filmed Entertainment*, November 1994, pp. 72-73.

<sup>27</sup> World Trade Organization, General Agreement on Trade in Services, *European Communities and Their Member States: Final List of Article II (MFN) Exemptions*, GATS/EL/31, 15 April 1994, pp. 1-3. Also, for an analysis of the WTO/GATS services negotiation, see USITC, *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, USITC publication 2940, December 1995, ch. 5.

<sup>28</sup> USITC, *ibid.* The original schedules of Austria, Finland, and Sweden did not include these two MFN exemptions. It has not been determined whether Austria, Finland, and Sweden will adopt these measures, as these countries are in the process of reconciling their schedules with the EU. EU Commission officials, interviews by USITC staff, Brussels, July 19, 1995; and Austrian and Finnish officials, interviews by USITC staff, Geneva, July 24, 1995.

“cultural protection” reasons, and listed similarly broad MFN exemptions. These are summarized in table 3.

U.S. film producers are adamant in attempting to rid international trade of such quota restrictions, government-subsidized film making, language restrictions, and other trade barriers. They contend that people anywhere should be able to see and listen to anything they choose; the market, rather than governments, should determine what people watch in their homes or in public.<sup>29</sup>

In any case, since the end of the Uruguay Round negotiations, many of the EU-member states have gone their own way in interpreting the quota rule,<sup>30</sup> several of them liberally. Also, digital television broadcasting is only now beginning to transform the European audiovisual market, greatly increasing the number of television channels, and thus the demand for audiovisual production, considerable portions of which may be met by U.S. studios. Merger and acquisition activity between production and broadcasting groups from different EU member states is intense.<sup>31</sup> Moreover, the British Broadcasting System now exports programming around the world and thus has an interest in liberalized global trade rules. The same is true for the huge German media company, Bertelsmann; the Dutch firm, Polygram; and the French television network, Canal Plus.<sup>32</sup> These firms place pressure on their respective governments to protect their production and broadcast interests in other countries, which often has the practical result of also lessening domestic protection. As this liberalization occurs, presumably the EU MFN “exemptions” will be removed.<sup>33</sup> Indeed, the argument has been made that these exemptions are already of decreasing consequence.<sup>34</sup> The WTO/GATS Annex on Basic Telecommunications, in conjunction with many full and partial commitments pertaining to enhanced telecommunications services, permits firms outside the EU and Canada to provide certain audiovisual services over telecommunication networks and ubiquitous information networks such as the Internet. The ability and willingness of any government to monitor services provided over such networks is questionable. Thus, adverse effects on U.S. audiovisual service suppliers may be short-lived owing to technological advances, global networks, and the deregulation of information networks.<sup>35</sup>

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<sup>29</sup> MPAA, *Trade Barriers to Exports of U.S. Filmed Entertainment*, November 1994.

<sup>30</sup> As earlier footnoted, the quota standard has a large “as practicable” loophole and permits varied interpretation. Broadly, the United Kingdom, Germany, and the Netherlands seem to dislike the quota rules and are active in the European Commission to mitigate their effects.

<sup>31</sup> “Something worth watching, at last,” *The Economist*, Apr. 20, 1996, pp. 53-54.

<sup>32</sup> *Forbes*, May 23, 1994, pp. 118-124. “The Player from Paris,” *Business Week*, Nov. 20, 1995, p. 70Dff.

<sup>33</sup> The piracy of intellectual property (that is to say, the copying of films and music without paying royalties or copyright fees), particularly in less developed economies, is currently the largest concern of Hollywood studios. It is also a major concern of EU audiovisual production enterprises.

<sup>34</sup> U.S. Government official, interview by USITC staff, Washington, DC, Aug. 14, 1995; and EU Commission official, interview by USITC staff, Brussels, July 19, 1995.

<sup>35</sup> This latter argument is quoted from a USITC report analyzing the GATS negotiations. See USITC, *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, Dec. 1995, pp. 10-6.



**Table 3**  
**Most-favored-nation (MFN) exemptions in audiovisual services, WTO/GATS schedules, April 1994<sup>1</sup>**

Country/region listing MFN exemption	Scope of audiovisual services to which exemption applies	Description of measure	Countries awarded preference	Duration of preference	Reason for listing MFN exemption
Canada	Production and distribution	Preferential treatment accorded to works and natural persons from preferred countries	All countries with co-production agreements with Canada and Quebec	Indefinite	Preserve Canadian and Quebecois cultures.
European Union (EU)	Production and distribution	National treatment in distribution and funding	Countries with which cultural cooperation agreements have been concluded <sup>2</sup> or with which cultural cooperation may be desirable <sup>3</sup>	Indefinite	Promote cultural links.
		Redressive duties against third countries with unfair trade practices against a member country <sup>4</sup>	EU member states	Indefinite	Counteract alleged unfair pricing.
		Support for audiovisual and TV works based on European origin criteria	All European <sup>5</sup> countries	Indefinite	Promote regional identity.
	Broadcasting and projection	National treatment based on linguistic <sup>6</sup> and origin criteria <sup>7</sup>	Parties to the Council of Europe Convention on Transfrontier Television <sup>8</sup> and others.	Indefinite	Promote cultural links and protect cultural heritage.
	All audiovisual services	Not identified <sup>4</sup>	EU member states	Indefinite	Protect member states from adverse unilateral actions.
Austria	All audiovisual services	National treatment	Members of the Council of Europe and others.	Indefinite	Promote cultural links and protect cultural heritage.
		Preferential treatment with respect to screen-time access	European countries	Indefinite	Promote cultural links and protect cultural heritage.
		Support for audiovisual works based on European origin criteria	European countries	Indefinite	Promote cultural links and protect cultural heritage.
Denmark	Production and distribution	Support for audiovisual works	Finland, Sweden, Norway, and Iceland	Indefinite	Preserve and promote regional identity.
Finland	Production and distribution	Support for audiovisual works	Denmark, Sweden, Norway, and Iceland	Indefinite	Preserve and promote regional identity.

See footnotes at end of table.

**Table 3—Continued**  
**Most-favored-nation (MFN) exemptions in audiovisual services, WTO/GATS schedules, April 1994<sup>1</sup>**

Country/region listing MFN exemption	Scope of audiovisual services to which exemption applies	Description of measure	Countries awarded preference	Duration of preference	Reason for listing MFN exemption
<i>Italy</i>	Projection and broadcasting	Ownership of more than 49 percent granted on the basis of reciprocity	All qualifying countries	Indefinite	Ensure equivalent market access for Italian firms.
<i>Spain</i>	Production and distribution	Waiver of licenses for the distribution of children's films of European origin dubbed in one of the four official languages of Spain <sup>9</sup>	Parties to the Council of Europe	Indefinite	Promote European cultural values and linguistic objectives.
<i>Sweden</i>	Production and distribution	Support for audiovisual works	All European countries	Indefinite	Preserve and promote regional identity

<sup>1</sup> The United States took no MFN exemptions in audio-visual services in its GATS Schedule of Commitments. See USITC, *U.S. Schedule of Commitments under the General Agreement on Trade in Services*, Inv. 332-354, Nov. 1995, pp. 78-94.

<sup>2</sup> Agreements already exist, or are being negotiated, with the following countries: Algeria, Angola, Argentina, Australia, Brazil, Burkina Faso, Canada, Cape Verde, Chile, Côte d'Ivoire, Colombia, Cuba, Egypt, Guinea Bissau, India, Israel, Mali, Mexico, Morocco, Mozambique, New Zealand, São Tomé e Príncipe, Senegal, Switzerland, Tunisia, Turkey, Venezuela, and States in Central, Eastern, and Southern Europe.

<sup>3</sup> There are no specific criteria for "desirable" cultural cooperation. EU Commission officials, interview by USITC staff, Brussels, July 19, 1995.

<sup>4</sup> It has not been determined whether Austria, Finland, and Sweden will adopt these measures. This matter is under negotiation in the process of reconciling their schedules with the EU.

EU Commission officials, interviews by USITC staff, Brussels, July 19, 1995; and Austrian and Finnish officials, interviews by USITC staff, Geneva, July 24, 1995.

<sup>5</sup> "European countries" can include any European country, within or outside of the European Union, with which cultural links exist.

<sup>6</sup> Linguistic criteria are determined by each member state. U.S. audiovisual products would satisfy linguistic conditions. EU Commission officials, interviews by USITC staff, Brussels, July 19, 1995.

<sup>7</sup> Origin criteria are determined by each member state in accordance with GATT provisions on rules of origin. EU Commission officials, interviews by USITC staff, Brussels, July 19, 1995.

<sup>8</sup> Cyprus, Finland, France, Germany, Italy, Malta, Norway, Poland, San Marino, Switzerland, Turkey, United Kingdom, the Holy See, Austria, Greece, Hungary, Liechtenstein, Luxembourg, the Netherlands, Portugal, Spain, and Sweden.

<sup>9</sup> Spanish Ministry of Culture official, telephone interview by USITC staff, Sept. 8, 1995. The determination whether a film is suitable for children is made under the jurisdiction of the Ministry of Culture. The official languages of Spain are Castilian, Catalan, Basque, and Galician.

Source: World Trade Organization, General Agreement on Trade in Services (GATS), Austria: Final list of Article II (MFN) Exemptions (GATS/EL/7), Apr. 1994; GATS, Canada: Final list of Article II (MFN) Exemptions (GATS/EL/16), Apr. 1994; GATS, European Union: Final list of Article II (MFN) Exemptions (GATS/EL/31), Apr. 1994; GATS, Finland: Final list of Article II (MFN) Exemptions (GATS/EL/33), Apr. 1994; GATS, Japan: Final list of Article II (MFN) Exemptions (GATS/EL/46), Apr. 1994; GATS, Mexico: Final list of Article II (MFN) Exemptions (GATS/EL/56), April 1994; GATS, Sweden: Final list of Article II (MFN) Exemptions (GATS/EL/82), Apr. 1994; EU Commission officials, interviews by USITC staff, Brussels, July 18-20, 1995; World Trade Organization officials, interviews by USITC staff, Geneva, July 24-25, 1995; Organization for Economic Co-operation and Development officials, interviews by USITC staff, Paris, July 19-21; domestic fieldwork, Dec. 1994-May 1995; and facsimiles received from officials of the Japanese, Mexican, and Canadian governments, Dec. 1994-May 1995.

## Conclusion

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The major Hollywood film studios are one true center of a major restructuring of the global entertainment, information, and communications markets. The studios hold real assets: film libraries, the talent and know-how to produce mass entertainment, and perhaps most importantly, established global distribution networks able to move this product around the world. The value of their distribution talents could change as the distribution of visual information becomes easier. However, such a radical change in distribution systems will take time and money to accomplish and will likely be prolonged, due especially to the necessary formal contractual complexities between independent cinema owners and distribution agents.

The "cultural protection" position that has bedeviled many international trade negotiations on audiovisual services may eventually become moot. Governments are increasingly unable to regulate the vast communications systems that move information around the globe, including satellite transmission and the Internet. Domestic political pressures will, however, force governments to keep trying, with various limited degrees of success.

In the meantime, it is likely that communications, information and entertainment companies will continue to merge and become increasingly international in their outlook. The revolution, just beginning, could be comparable to the industrial revolution that created the world's great cities.

## Annex: Mergers and Acquisitions in the U.S. Film Industry

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Following is a detailed picture of investment, merger, and acquisition activity involving the seven major studios of the U.S. film industry.

### *Twentieth Century Fox*<sup>36</sup>

Significant foreign investment in Hollywood began with the purchase of Twentieth Century Fox from oilman Marvin Davis for \$250 million by Rupert Murdoch, then an Australian citizen, in 1984. Murdoch remains the major shareholder of News Corp., Inc., an Australia-based holding company. Two months after his purchase of the Fox studio, he bought six of Metromedia's seven television stations for a net price of \$1.6 billion, and assumed additional debt of the company.<sup>37</sup> These six stations, then able to reach 18 percent of the U.S. population, became the

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<sup>36</sup> The facts for this section came principally from four sources: William H. Meyers, "Murdoch's Global Power Play," *The New York Times (Business World Magazine)*, June 12, 1988, p. 19; Ben Bagdikian, "Conquering hearts and minds: the lords of the Global Village," *The Nation*, June 12, 1989, pp. 15-33; "Murdoch and News Corp.: High-Stakes Global Gamblers," *Forbes ASAP*, Feb. 16, 1987, p. 42; and *Business Week*, May 20, 1985, p. 105.

<sup>37</sup> Two of these stations were in New York and Los Angeles. An industry rule of thumb is that running a show in the New York and Los Angeles markets alone is almost enough to pay for the

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base for the Fox Television network, the fourth-largest network in the United States. Because U.S. law at that time limited foreign investment in domestic television stations to 20 percent, Murdoch became a U.S. citizen. Indeed, there was considerable controversy among media companies when the U.S. Department of Justice determined that News Corp. Inc., though incorporated in Australia, was in fact a "U.S. company," on the grounds that its controlling shareholder was a U.S. citizen.<sup>38</sup> Murdoch also had an advantage in these early U.S. investments: The Federal Communication Commission's definition of a network did not apply to Fox, because of its relatively modest size. The definition left Fox free from rules that prohibited ABC, CBS and NBC from owning network shows or syndicating those shows after their network run.

In any case, the News Corp. holds not only a U.S. television network (which also sells programming to independent stations), but also a major United Kingdom-based regional satellite broadcasting television network, Sky, which covers eight nations in Europe, as well as a huge (Hong Kong-based) Asian satellite network, Star TV, that can potentially broadcast to all China and much of Asia. The first Chinese-language channel was offered to China's 1,000 cable operators by way of the AsiaSat-2 satellite on March 31, 1996.<sup>39</sup> In the same month, Star TV took over Indovision, Indonesia's infant (and only) pay-TV network, to compete with the five channels that are already broadcasting there: TNT, CNN, ESPN, the Discovery Channel, and Home Box Office. The latter are now dependent on their competitor, Star TV, for signal transmission and will contribute to Star TV revenue by the payment of fees for access to AsiaSat.<sup>40</sup>

Although Murdoch has decreased his print holdings, he reportedly controls more news circulation than any other publisher in the world.<sup>41</sup> News Corp. owns, for example, *T.V. Guide*, *Seventeen*, and *New York* magazines as well as Harper and Row books in the United States. Also, Murdoch has other major publishing holdings in Australia, the United Kingdom, and Hong Kong. In the meantime, Twentieth Century Fox studios (and its 2,800-film library) produces and distributes movies and other programs for this vast broadcast network, now on four continents.

### ***Universal Studios (MCA Inc.)***

Japan's Osaka-based Matsushita Electric Industrial Co. Ltd. bought MCA in 1990 for \$6.1 billion.<sup>42</sup> The motivation reportedly was a marriage of hardware and software, whereby Matsushita's strengths in making consumer goods hardware could complement MCA's film library and studio production. The merger would also position Matsushita for satellite

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<sup>37</sup> (...continued)  
creation of the show.

<sup>38</sup> "Kings of the Deal," *The Economist*, Dec. 3, 1994, p. 77.

<sup>39</sup> "Battle of the Titans: Murdoch cracks tough Asian television markets," *Far Eastern Economic Review*, Apr. 4, 1996, pp. 56-57.

<sup>40</sup> *Ibid.*

<sup>41</sup> Paul Farhi, "Mogul Wrestling: In the War Between Murdoch and Turner, Similarity Breeds Contempt," *Washington Post*, Nov. 18, 1996, p. C1 ff.

<sup>42</sup> "Carry on, Mr. Sheinberg," *Forbes*, July 18, 1994, p. 72.

broadcasting in Japan and elsewhere. However, Matsushita suffered financially during Japan's recent recession and was unable to expand into cable television and network broadcasting, as its rivals did: Time-Warner, Disney and Paramount.<sup>43</sup> In April 1995, Matsushita sold 80 percent of its MCA holdings to Canada's Seagram,<sup>44</sup> the distiller group, for \$5.7 billion, while also reportedly retaining MCA's \$3 billion in long-term debt.<sup>45</sup> Matsushita announced plans on April 8, 1996, to set up a wholly owned production company in Los Angeles to create digitally processed movies for the new digital videodisc system, DVD, and to convert 20 to 40 titles a month from the MCA/Universal studios film archive to their DVD system.<sup>46</sup>

### *Sony Entertainment Corporation*

Sony Entertainment is the name of the former Columbia and Tri-Star film studios. Sony (Japan) bought these companies in 1989 for \$3.4 billion and assumed another \$1.2 billion in studio debt. As with Matsushita's investment in Universal, the reported motivation for the deal stemmed from a desire to marry hardware and software on a global scale. In Sony's case, however, the investment was also largely governed by a desire to set the global standard for a new DVD technology that is thought to be the successor to the video cassette recorder, as well as by an interest in positioning itself for satellite broadcasting in Japan. The DVD device is considered by the consumer electronics industry to be the invention that brings interactive video to computers, finally fulfilling the promise of true multimedia. The grand vision of the technology would be not only a new and improved way to furnish consumers with music and movies, but also supply a data format for computer software, telecommunications, cable TV, and satellite broadcasting.<sup>47</sup>

Like other investors in Hollywood, however, Sony has experienced problems. Reportedly, management mistakes and profligate spending led to a write off of \$2.7 billion in studio debt in November 1994, the biggest financial loss in the history of the movies.<sup>48</sup> Perhaps more seriously, Toshiba (with a small stake in Time-Warner, parent of Warner Brothers) ultimately dominated the development of DVD technology standards. The new standard has remained a contentious issue; it is expected to be agreed soon and will be shared by many companies.<sup>49</sup> In

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<sup>43</sup> "On the cutting room floor," *The Economist*, Apr. 8, 1995, p. 16.

<sup>44</sup> Seagram also has a 15-percent stake in Time-Warner, parent of Warner Brothers studio, which it bought in 1993 for \$2 billion. Seagram attempted to increase its investment in Time-Warner and obtain a controlling interest, but was thwarted by a Time-Warner "poison pill" strategy, which made the proposed deal prohibitively expensive for Seagram. See "Matsushita and Hollywood: Retreat from Tinseltown," *The Economist*, Apr. 8, 1995, p. 58.

<sup>45</sup> "A Toast to Seagram," *Forbes*, May 8, 1995, p. 162.

<sup>46</sup> *Japan Digest*, Apr. 8, 1996, p.11. Such action may well be delayed, however, because of lack of agreed DVD standards.

<sup>47</sup> "Sony on the Brink," *Fortune*, June 12, 1995, p. 62.

<sup>48</sup> *Ibid*, p. 72.

<sup>49</sup> Daniel Greenberg, "Digital Video Dish," *The Washington Post, Fast Forward: A Monthly Guide to Video, Music & Computers*, September 1996, p. 16.

any case, Sony continues to face major problems with its Hollywood venture and reportedly plans to put it back on the market in the near future.<sup>50</sup>

### *Walt Disney*

In August, 1995, *Disney* bought the Capital Cities/ABC television network (joint revenues of \$16.4 billion in 1994<sup>51</sup>), taking on \$10 billion of debt to do so. The *Wall Street Journal* reported, "It won't be long, Disney promises, before ABC is promoting Disney animation, while Disney theme parks are plugging ABC TV shows, while ABC's ESPN cable operation is crosspromoting events with the new Disney sports resorts."<sup>52</sup> Table 2 indicates the scope of Disney investments in the entertainment/communications sector.

### *Warner Brothers*

Disney's rival, Time-Warner, tried to buy a 49-percent stake in NBC television in 1994 (owned by General Electric), but failed. As the largest supplier of programs to U.S. television networks, Time-Warner is reportedly concerned about its ability to find guaranteed space on the air.<sup>53</sup> Time-Warner already owns Warner Brothers films and music, major print publications and other huge holdings in entertainment and communications. In September 1995, Time-Warner, already a minority shareholder, made a bid for Turner Broadcasting. The deal was finally approved by the Federal Trade Commission on September 11, 1996.<sup>54</sup> The Turner acquisition brings to the already large Time-Warner holdings the addition of the Turner Broadcasting company and other major holdings (table 2). Moreover, U.S. West, a U.S. regional telephone company, holds a 25-percent stake in Time-Warner.<sup>55</sup> Canada's Seagram, recent purchaser of Universal studios, also has a 14.9-percent stake in Time-Warner.<sup>56</sup> On the downside, an approved Time-Warner/Turner merger dilutes Time-Warner shares by 50 percent but does nothing to reduce the company's \$15 billion debt. The size of debt servicing consumes up much of the company's cash flow.<sup>57</sup>

### *Metro-Goldwyn-Mayer/United Artists (MGM/UA)*

MGM/UA was owned until 1996 by the \$325-billion French bank Credit Lyonnais. It inherited the property from the Italian firm Pathe Communications, whose owner (G. Piretti) had secured

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<sup>50</sup> *The Economist*, Nov. 23, 1996, p.7.

<sup>51</sup> "Television: Vanity, insanity and fear," *The Economist*, Sept. 2, 1995, p. 57.

<sup>52</sup> "It May Be Hollywood, But Happy Endings Are Unusual in Mergers," *Wall Street Journal*, Aug. 2, 1995, p. 1.

<sup>53</sup> *Ibid.*

<sup>54</sup> U.S. Federal Trade Commission, [File No. 961-0004], "Time-Warner Inc., et al; Proposed Consent Agreement with Analysis to Aid Public Comment," *Federal Register*, Vol. 11, No. 187, Sept. 25, 1996, p. 50301.

<sup>55</sup> "Television: Vanity, insanity and fear," *The Economist*, Sept. 2, 1995, p. 57.

<sup>56</sup> "What Seagram wants," *Advertising Age*, Apr. 10, 1996, p. 2.

<sup>57</sup> "Time-Warner Turner: Nice Script, But..." *Business Week*, Sept. 11, 1995, p. 40.

an \$800-million loan from Credit Lyonnais's Dutch subsidiary, CL Bank Nederland, and then went bankrupt in 1991.<sup>58</sup> MGM has been ailing financially since the 1970s, at which time it began to sell its overseas movie theaters, costumes, props and vintage cars, and its film library. Since U.S. law prohibits banks from owning more than 25 percent of nonbank companies, Credit Lyonnais was forced to divest. Towards this end, it wrote off \$2 billion of debt and invested another \$400 million in the company.<sup>59</sup> In July 1996, Credit Lyonnais sold the studio to a group headed by billionaire American Mr. Kirk Kerkorian, an active Hollywood entrepreneur, who had twice before bought and sold the same studio. The price was \$1.3 billion and major investors include the Australian broadcasting company Seven Network Ltd.<sup>60</sup>

### *Paramount*

The final major Hollywood film maker is Viacom, owner of *Paramount* studios. In a hugely contested takeover deal, Sumner Redstone, controlling stockholder of National Amusements Inc., parent company of Viacom, bought Paramount for \$10 billion in early 1994.<sup>61</sup> Other Viacom property includes the publishing house Simon and Shuster; the Nickelodeon, MTV, and Showtime cable channels; and the Blockbuster chain, which operates 3,600 video stores and more than 500 music outlets. Blockbuster also owns 78 percent of Spelling Entertainment (producer of *Beverly Hills 90210* and *Melrose Place*) as well as 50 percent of a group of children's play centers called Discovery Zone.<sup>62</sup> Reportedly, Redstone is in the market for more television outlets, perhaps a network.<sup>63</sup> ■

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<sup>58</sup> "In the Lion's Den," *Forbes ASAP*, Oct. 9, 1995, p. 27.

<sup>59</sup> "You're not in Kansas anymore," *The Economist*, Feb. 4, 1995, p. 58.

<sup>60</sup> James Bates and Claudia Eller, "Management Group Backed by Kerkorian to Buy MGM," *Los Angeles Times*, July 17, 1996.

<sup>61</sup> "Late Bloomer," *Forbes 400*, Oct. 17, 1994, p. 40.

<sup>62</sup> *Ibid*, pp. 40-45.

<sup>63</sup> *Ibid*, p. 42.





# Global Competitiveness and Organized Labor: The Case of Caterpillar Inc. and The United Auto Workers Union

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*For 5 years union workers at Caterpillar plants in Illinois, Pennsylvania, and Colorado have been without a contract. During this period two major strikes, several wildcat walkouts, and complaints issued by the National Labor Relations Board have beset one of the world's largest manufacturers of earthmoving and construction equipment. This article examines whether Caterpillar's labor problems have had an effect on the company's global competitive position. The current status of developments, as well as an examination of quantitative indicators of performance and company actions during the period, provide the basis for this assessment.*

In December 1995, following several years of labor-management contention, the longest strike in Caterpillar history ended and United Auto Workers (UAW) union employees returned to their jobs at Caterpillar plants nationwide (table 1). Yet, while UAW laborers have been back to work for over a year, Caterpillar and the UAW have yet to reach a contract settlement. On August 27, 1996, Caterpillar declared negotiations at an impasse and announced plans to impose new terms of employment, specifically, provisions similar to those of the 1995 proposed contract that was voted down by union members.<sup>1</sup> UAW employees, working under terms offered at the end of the 1992 strike, opposed the company's suggested actions; Caterpillar subsequently declined to implement its plan and announced that meetings would ensue.<sup>2</sup> The company indicates that both management and labor are eager to reach an agreement, but that the centralization of UAW decision making in Detroit and the union's apparent commitment to pattern bargaining have been an encumbering factor.<sup>3</sup>

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<sup>1</sup> Bureau of National Affairs, Inc., *Daily Labor Report*, "Caterpillar Declines to Impose Employment Terms on Workforce," Oct. 2, 1996; *Wall Street Journal*, "New Work Rules to Be Set Unless UAW Rejoins Talks," Aug. 28, 1996, p. B4; and USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

<sup>2</sup> UAW news release, Aug. 27, 1996, [[http://www.uaw.org/uawreleases/uaw\\_news/cat8-27.html](http://www.uaw.org/uawreleases/uaw_news/cat8-27.html)], and Bureau of National Affairs, Inc., *Daily Labor Report*, "Caterpillar Declines to Impose Employment Terms on Workforce," Oct. 2, 1996.

<sup>3</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

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**Table 1**  
**Chronology of events at Caterpillar, 1991-1995**


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**1991**

- Sept. Labor contract between Caterpillar Inc. and the United Auto Workers (UAW) union, originally set to expire on Sept. 30, is extended; UAW uses the interim period to conclude negotiations with Deere & Co., another manufacturer of construction equipment.
- Oct. UAW proposes a new contract similar to that negotiated with Deere & Co.; Caterpillar, unreceptive to pattern agreements,<sup>1</sup> states that the proposal does not address the company's global competitive needs.<sup>2</sup> Caterpillar submits its contract offer, which is rejected by the union.
- Nov. 3 UAW cancels the contract extension and launches a limited strike at Caterpillar plants in Decatur and East Peoria, IL.
- Nov. 7 Caterpillar locks out UAW workers at two other facilities (Illinois). Company officials indicate that they are willing to implement an additional contract extension.
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**1992**

- Feb. Though Caterpillar ends the lockout, the UAW expands the strike, bringing the total number of UAW members involved to 10,700.
- Apr. 1 With negotiations at an impasse, Caterpillar notifies striking UAW workers to return to work on April 6, or risk being permanently replaced.<sup>3</sup>
- Apr. 6 Though some 400 workers cross picket lines and return to work, the UAW calls strikes at four more Caterpillar plants in Illinois, boosting the total number of striking workers to 12,600.
- Apr. 14 A Federal mediator and the UAW move to end the 5½ month strike without a contract settlement.
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**1994**

- June 21 After an in-plant campaign,<sup>4</sup> a series of brief localized walkouts, and efforts at mediated negotiations, the UAW launches its second major strike, alleging unfair labor practices.<sup>5</sup> Over 14,000 UAW members, approximately 38 percent of Caterpillar's total U.S. workforce, join the strike at Caterpillar plants in Illinois, Pennsylvania, and Colorado.
- Aug. Though the UAW triples monthly strike pay to \$1,200, approximately 4,000 picketing union members return to work as Caterpillar hires retirees, temporary workers, and 1,200 new employees as well as shifts 6,000 office workers into its plants in an effort to maintain production.<sup>6</sup>
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**1995**

- Feb. The Federal Mediation and Conciliation Service (FMCS) brings Caterpillar and the UAW together for 4 days of talks. Despite a positive initial meeting with the director of FMCS, discussions ultimately break down and the meetings are recessed.
- June Efforts to effect an agreement are resumed following a shift in previous policy by newly elected UAW officials who want the two sides to meet without the help of a Federal intermediary, and are not concerned with the location of the talks.<sup>7</sup> Resolution of the dispute is deemed a high priority.<sup>8</sup>
- Nov. Following high level meetings, the UAW announces that members will be allowed to vote on a company contract proposal.
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*Continued*

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**Table 1--Continued**  
**Chronology of events at Caterpillar, 1991-1995**

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**1995--Continued**

Dec. 2-3 Caterpillar's final offer, purportedly similar to the terms on the table before the walkout, is brought before the striking laborers and rejected; however, the UAW's bargaining committee elects to recess the strike and make all striking employees available for immediate return to work.

Dec. 7 Caterpillar begins recalling workers, concluding the 17½ month strike.

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<sup>1</sup> A pattern agreement is a contract similar in terms to that negotiated between another company and its employees.

<sup>2</sup> Remarks by Donald Fites, Chairman and Chief Executive Officer, Caterpillar Inc., before the Foreign Trade Association of Southern California, May 21, 1992.

<sup>3</sup> Under current Federal labor law, employers can replace workers who strike over contracts and pay, but cannot replace workers who strike over alleged unfair labor practices.

<sup>4</sup> The in-plant campaign reportedly included the display of pro-union paraphernalia and a commitment by some members to adhere ardently to work rules; in other words, to slow production by abiding strictly to company policy and standard work hours.

<sup>5</sup> Caterpillar maintained that the strike was over the unresolved contract matters. An important distinction since, under Federal labor law, the UAW's claim would block Caterpillar from hiring permanent replacements. As noted, Caterpillar invoked this privilege during the first strike and brought the conflict to an end.

<sup>6</sup> *Business Week*, "For Now, The UAW Can't Keep Cat From Purring," Oct. 3, 1994, p. 57, and *Wall Street Journal*, "Caterpillar's Net Beat Estimates for 3rd Quarter," Oct. 25, 1994, p. A2.

<sup>7</sup> Union negotiators had previously requested neutral meeting sites and often relied on the participation of Federal mediators. *Wall Street Journal*, "New UAW Head Plans to Revive Effort to End Yearlong Caterpillar Strike," June 27, 1995, p. B4.

<sup>8</sup> *Ibid.*

Source: Compiled by staff of the USITC from various sources.

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In addition to the lack of a contract agreement, Caterpillar has found itself at the center of over 200 complaints issued by the National Labor Relations Board (NLRB).<sup>4</sup> In late June 1996, an Administrative Law Judge for the board issued an affirmative decision in support of a dismissed UAW employee's right to wear a protest button and ordered Caterpillar to provide restitution of back pay for all involved in the disciplinary dispute. A ruling in July found that Caterpillar had interfered with union members' rights to freedom of expression, and a complaint citing 150 separate instances in which the company allegedly breached UAW member rights was placed on the NLRB docket on August 29, 1996.<sup>5</sup> Additional cases and appeals have yet to be heard. In a separate matter, Caterpillar was found in contempt of court by a U.S. District Court judge for refusing to admit National Institute for Occupational Safety and Health inspectors, dispatched to investigate possible cadmium dangers at the company's York, PA plant.<sup>6</sup> Caterpillar has also been fined by the Occupational Safety and Health Administration for health

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<sup>4</sup> The National Labor Relations Board is an independent government agency created to administer the National Labor Relations Act. The Board functions to prevent and remedy unfair labor practices committed by both private sector employers and unions, and to protect employees' rights to self-organization and collective bargaining.

<sup>5</sup> Alleged charges include the illegal harassment, suspension, and firing of more than 100 union members since their return to work in December 1995. *Wall Street Journal*, "Labor Board is Accusing Caterpillar of Harassment," Aug. 30, 1996.

<sup>6</sup> *Roads & Bridges*, "Caterpillar Forms China Unit; Clashes with NIOSH at Home," June 1996, p. 25.

and safety infractions as well as violations of Federal health and safety laws,<sup>7</sup> and has faced employee animosity over its decision to close the company's York area parts plant on the grounds that the facility is not cost-competitive.<sup>8</sup>

## Caterpillar as a Global Competitor

According to Caterpillar officials, the company is committed to competing overseas from a domestic base, shifting production abroad only when necessary to fulfill demand.<sup>9</sup> This being the case, the cost and availability of a domestic labor force are factors pertinent to international competitiveness. In addition, a large portion of Caterpillar's domestic workforce is unionized, thus strikes and other union matters can become critical factors affecting the company's competitive position. The UAW has stated that Caterpillar cannot maintain leadership in world markets while "at war with [its] workforce."<sup>10</sup> Given the duration of labor difficulties and the general availability of basic performance data, the Caterpillar situation creates a functional case by which to examine the impact of labor difficulties on company performance in the global marketplace. While the key performance indicators examined may not be solely or exclusively indicative of the effects of labor dissention, the cumulative review of these variables suggests a broad and viable foundation for interpretation and conclusion.<sup>11</sup>

### *Quantitative Indicators*

Caterpillar's lengthy struggle with the UAW seems to have had relatively little impact on the company's bottom line. The overall strength of the economy and the relative competitiveness of Caterpillar's products appear to have been far more important factors affecting the company's profitability. Following a down year in 1992,<sup>12</sup> profits grew by 46 percent during 1993-94. In 1995, profits rose by 19 percent and topped the \$1 billion mark for the first time in Caterpillar history. Revenues and sales during 1992-95 grew steadily at an average annual rate of 16 percent. Looking specifically at the period of the 17 ½ month strike, the company reported record gains for several quarters during the dispute (figure 1).<sup>13</sup> Profits rose by an

<sup>7</sup> UAW news release, May 3, 1996, [[http://www.uaw.org/uawreleases/uaw\\_news/catjudge.htm](http://www.uaw.org/uawreleases/uaw_news/catjudge.htm)], and USITC telephone interview with OSHA representatives, Jan. 21, 1995.

<sup>8</sup> UAW Worker News, "UAW/CAT Update," vol. 1, No. 2, Aug. 1996, pp. 6-7, [<http://www.uaw.org/workernews/catup8.html>].

<sup>9</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

<sup>10</sup> UAW Worker News, "UAW/CAT Update," vol. 1, No. 2, Aug. 1996, p. 3, [<http://www.uaw.org/workernews/catup8.html>].

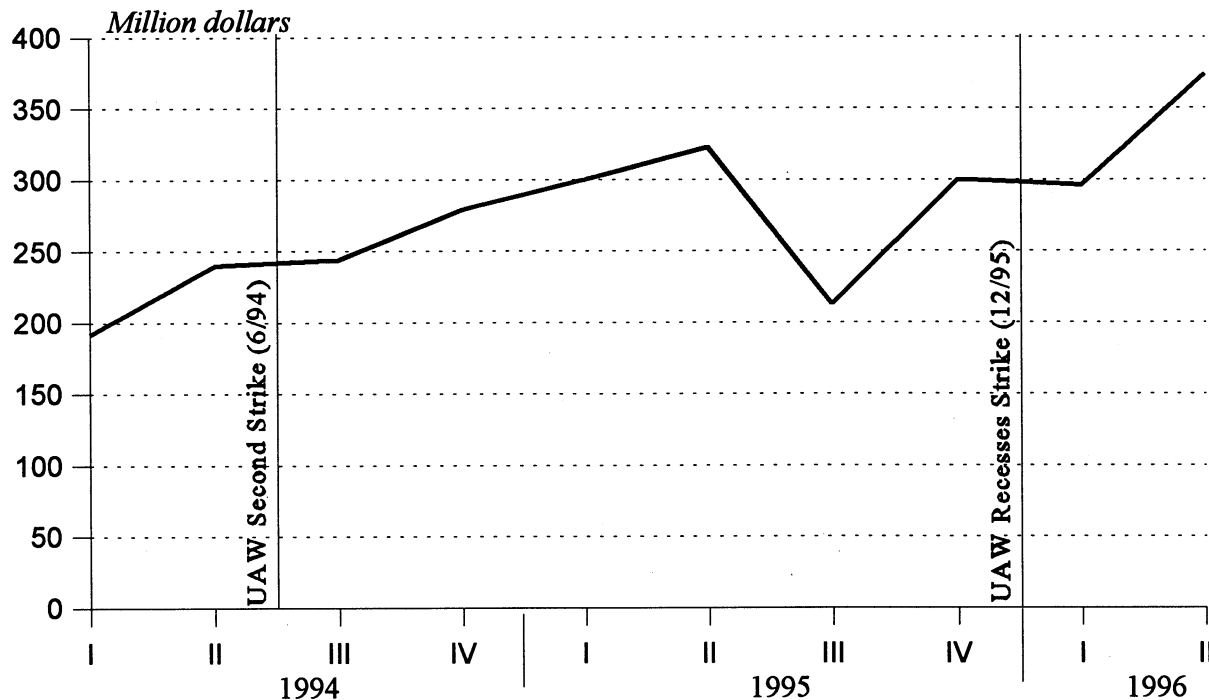
<sup>11</sup> In addition, the existence of potentially causative external variables affecting the quantitative data under consideration is inevitable. Where possible, relationships involving these factors are acknowledged and explained.

<sup>12</sup> The company reported a loss of \$2.4 billion in 1992, largely attributable to worldwide recessionary factors. Caterpillar Inc., 1992 Annual Report.

<sup>13</sup> Caterpillar posted 3 consecutive quarters of record profits during the initial period of the second major strike. During the third quarter of 1995, a decline in profits and sales is attributed to unfavorable market conditions. *Wall Street Journal*, "Caterpillar Posts 13% Drop in Net for Third

(continued...)

Figure 1  
 Quarterly profits, Caterpillar Inc., 1994-96



Source: Compiled from data obtained from Caterpillar Inc.

average of 6 percent per quarter, and remained high during the first 2 quarters of 1996 as the strike was terminated and union workers reclaimed their jobs. Sales and revenues also rose by an average of 4 percent per quarter during July 1994-December 1995.

Other data indicate that Caterpillar was able to take advantage of strong domestic demand and increased export opportunities despite the labor dispute and repeated walkouts. The company's exports increased by an average of 16 percent per year during 1992-95, reaching a record \$5.1 billion in 1995. During this period, Caterpillar's U.S. sales increased by an average of \$1 billion per year, while total sales outside the United States gained an average of \$870 million annually. In addition, Caterpillar expanded its share of the domestic market relative to its principal competitors in major sectors of the construction equipment industry during 1992-1995 (table 2). In a number of these categories, Caterpillar's principal competitor lost ground in the U.S. market during this period. For example, in hydraulic excavators, a sector regarded by the industry as lucrative and highly competitive, Caterpillar expanded its market share while Komatsu's share fluctuated downward.

<sup>13</sup> (...continued)

Quarter," Oct. 8, 1995, p. A4, and Caterpillar Inc., Third-Quarter Financial Results, [<http://www.cat.com/news/1995/101795.htm>].

**Table 2**  
Construction equipment, estimated U.S. market shares,<sup>1</sup> 1992-95

(Percentage)

Product	Company	1992	1993	1994	1995
Crawler tractors	Caterpillar	47.8	51.3	55.0	54.4
	Deere	20.9	21.3	20.6	20.4
Crawler loaders	Caterpillar	61.1	67.7	80.7	80.0
	Deere	18.1	12.8	13.3	11.6
Hydraulic excavators	Caterpillar	24.8	29.1	33.4	34.6
	Komatsu	22.8	19.5	20.9	20.4
Loader backhoes	Caterpillar	20.4	30.9	32.7	37.3
	Case	43.4	33.8	31.3	28.8
Articulated haulers	Caterpillar	27.1	38.7	32.8	35.3
	Volvo	46.4	45.6	54.1	49.7
Wheel loaders	Caterpillar	38.9	44.7	43.0	42.2
	Deere	13.1	13.8	12.8	13.9
	Komatsu	12.0	13.1	13.0	13.3

<sup>1</sup> Percentages based on Uniform Commercial Code filings.

Source: Manfredi and Associates

With respect to the effects of the labor dispute on productivity, Caterpillar officials state that productivity rose during the second strike to reach gains of 25-30 percent at the end of the dispute.<sup>14</sup> These officials maintain that the efficiency gains were not only sustained, but augmented when the striking workers returned. In addition, company officials cite examples indicating that the timeliness of deliveries was unaffected. For example, the company's Mossville engine plant shipped just-in-time deliveries to one major U.S. automaker without problems or delays.<sup>15</sup> And, while the UAW and some dealers felt that a falloff in quality occurred with the onset of the second, prolonged strike, other customers reported high quality without delays.<sup>16</sup>

At the same time, it appears that the company may have been negatively affected by the recurring walkouts in the area of research and development (R&D). Though Caterpillar increased R&D by \$97 million in 1995, expenditures grew by only \$9 million during 1992-93, and fell by \$20 million in 1994 (table 3). Work on new products slowed greatly with the onset of the second, national strike in June 1994; third quarter R&D expenses for that year fell by \$15

<sup>14</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.<sup>15</sup> Company representatives, interview.<sup>16</sup> *Business Week*, "For Now, The UAW Can't Keep Cat From Purring," Oct. 3, 1994, p. 57, and *Wall Street Journal*, "Caterpillar's Net Beat Estimates for 3rd Quarter," Oct. 25, 1994, p. A2.

million alone.<sup>17</sup> In addition, R&D expenditures, measured as a share of revenues and operating costs, have declined in recent years. During the walkouts the company reportedly shifted workers from areas of R&D to the factories,<sup>18</sup> thus, declining R&D expenditures appear to be largely attributable to company efforts to maintain production during the strikes rather than a company decision to allot fewer resources to innovation. However, in 1996 Caterpillar expanded its agricultural equipment operations, indicating that the company has been able to refocus its emphasis on new product development.

**Table 3**  
**Research and development expenditures, Caterpillar Inc., 1992-95**

Item	1992	1993	1994	1995
Total research and engineering expenses ( <i>million dollars</i> )	446	455	435	532
As a percent of sales and revenues	4.4	3.9	3.0	3.3
Research and development expenses, machinery and engines ( <i>million dollars</i> )	310	319	311	375
As a percent of total operating costs, machinery and engines	3.1	3.0	2.5	2.7
<sup>1</sup> Includes both research and development expenses for new product development and those pertaining to the improvement of existing products. Source: Compiled from data obtained from Caterpillar Inc.				

## Company Strategy

A strike typically involves a plant shut-down and disrupted production with the potential for adverse financial consequences; however, Caterpillar, with its transitory workforce of retirees, office staff, and new and temporary help, was able to keep its assembly lines in motion with seemingly favorable results. Various factors, both planned and unexpected, contributed to the company's ability to produce and perform at or above pre-strike levels. For example, while company officials concede that Caterpillar was less prepared for the initial strike, the intermittent walkouts that followed enabled the company to detail and develop substitute production schedules that were improved and fine-tuned with each implementation.<sup>19</sup> Contingency plans were in place at the station level of every plant and the company was well-prepared and ready to act when the massive walkout of June 1994 began. In fact, Caterpillar reported an overall production rate for the last half of 1994 that was 14 percent higher than the

<sup>17</sup> *Wall Street Journal*, "Caterpillar's Net Beat Estimates for 3rd Quarter," Oct. 25, 1994, p. A2.

<sup>18</sup> *Business Week*, "For Now, the UAW Can't Keep Cat from Purring," Oct. 3, 1994, p. 57.

<sup>19</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

first.<sup>20</sup> Where demand could not be met by the factories' assembled staff, Caterpillar filled the gaps with products from non-UAW facilities in the United States, Europe, and Japan.<sup>21</sup>

In addition, the company reported efficiency gains pertaining to both human and physical capital. Company sources explain that management staff who assumed assembly duty during the walkouts learned a great deal about the intricacies of the production process, the labor-intensive aspect of manufacturing, and the tangible knowledge necessary to do the job well.<sup>22</sup> Caterpillar officials explain that engineers stepped away from the drawing board, manned the lines, and gained insight from their designs. Consequently, the company found several ways to improve proficiency and operate capital equipment to capacity. Company sources note that *esprit de corps* soared, teamwork became the standard, and better communication augmented the company's ability to maintain and enhance production. Caterpillar's previous mass investments in automation and line modernization may also have added to the ability of the replacement workers to perform productively.

To ensure a smooth transition after the second strike, the company established distinct work rules, in place at every plant, with each individual station responsible for their enforcement. Rules on when and where to report, guidelines governing supervisory procedure, and standards of conduct limiting the speech and attire of workers<sup>23</sup> bound the return of the 8,700 remaining strikers who would work alongside new help and union employees who had crossed picket lines.<sup>24</sup> Caterpillar reportedly instituted the stringent system to ensure order and productivity<sup>25</sup> and company officials contend that, while the workers' return was initially difficult, a clear understanding of the work rules eased the transition.<sup>26</sup> On the other hand, labor's displeasure with the new system and the company's disciplinary actions over rule violations appear to have added to the number of unfair labor practice issues before the NLRB.<sup>27</sup>

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<sup>20</sup> *Financial World*, "CEO of the Year," Mar. 28, 1995, p. 72.

<sup>21</sup> *Wall Street Journal*, "Caterpillar Had Record 2nd Period Net and Sees 'Minimal Impact' from Strike," July 22, 1994, p. A2, and USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

<sup>22</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

<sup>23</sup> For example, rules limiting derogatory epithets and certain slogans were reportedly enforced. *Wall Street Journal*, "Caterpillar 'Cool Off' Has UAW Workers Hot under the Collar," Jan. 12, 1996, p. A1, and *Wall Street Journal*, "Caterpillar Continues to Stand Tough as Strikers Return," Dec. 8, 1995, p. B1.

<sup>24</sup> *Wall Street Journal*, "Caterpillar Continues to Stand Tough as Strikers Return," Dec. 8, 1995, p. B1.

<sup>25</sup> *Wall Street Journal*, "Caterpillar 'Cool Off' Has UAW Workers Hot under the Collar," Jan. 12, 1996, p. A1.

<sup>26</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

<sup>27</sup> UAW news release, Aug. 29, 1996, [[http://www.uaw.org/uawreleases/uaw\\_news/cat8-29.html](http://www.uaw.org/uawreleases/uaw_news/cat8-29.html)], and UAW Worker News, "UAW/CAT Update," vol. 1, No. 2, Aug. 1996, p. 1, [<http://www.uaw.org/workernews/catup8.html>].



## Conclusion and Implications

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Labor unions have routinely used strikes as a way to increase leverage in contract negotiations. The UAW, however, found that despite its persistence and traditional methods, Caterpillar was able to keep its factories open with profitable results. According to Caterpillar officials, shutting down was not an option, nor was signing a pattern contract that the company believes would not take into account the dynamics of an intensely competitive global market.<sup>28</sup> Caterpillar's uncommon approach, which appears to have kept the company competitive and profitable, provides an example with potentially broad implications.

The Caterpillar case illustrates that it is not inevitable that a company cease production, lose sales, and forfeit competitive advantage during a walkout. With many companies operating on a build to order schedule,<sup>29</sup> one company's shut down could have consequential effects on another's ability to produce and compete. Though the speed and complexity of assembly lines vary among manufacturers, and some industries may not be able to successfully endure an extended walkout, Caterpillar has experienced a favorable result. Also, pattern bargaining, the company says, cannot exist in a global environment where U.S. companies compete with foreign manufacturers that do not face similar labor costs.<sup>30</sup> The Caterpillar example indicates that management may have greater control over labor costs, or at least may be able to pursue more tailored agreements. Recently, the UAW indicated that the Caterpillar outcome caused the union to abandon across-the-board agreements in its talks with the major U.S.-owned automakers.<sup>31</sup> Greater control over employment expenditures could have subsequent effects on the amount of work out-sourced or the degree to which companies relocate overseas. While it remains to be seen whether other companies will adopt Caterpillar's approach when faced with labor disputes, this case may reflect measures that will receive serious consideration in today's global environment where competitors stand ready to step in where others falter. ■

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<sup>28</sup> Caterpillar contends that pattern bargaining is not practical because the company operates from a domestic base, competes primarily with foreign producers, and is more export oriented than other manufacturers that adhere to pattern agreements. Remarks by Donald Fites, Chairman and Chief Executive Officer, Caterpillar Inc., before the Foreign Trade Association of Southern California, May 21, 1992.

<sup>29</sup> Many manufacturers choose not to stock large inventories of products because of cost, inefficiency, and inconvenience. Caterpillar, for example, builds certain machinery only when an order for that particular product comes in. Therefore, without a backup supply of goods, a shut down could seriously impair manufacturers who supply machinery and parts, and, in turn, affect companies down the line that use such goods in their operations.

<sup>30</sup> USITC staff interview with company representatives, Peoria, IL, Sept. 25, 1996.

<sup>31</sup> *Los Angeles Times*, "UAW May Be in a Progressive Mode Again," Washington Post News Service, Sept. 6, 1996.



# Evolution of the U.S.-Japanese Semiconductor Trade Regime

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*On August 2, 1996, the Governments of the United States and Japan and their respective semiconductor trade association reached an accord regarding trade in semiconductors. This accord is the third between the United States and Japan since 1986. More than simply an extension of the previous agreements, the new accord reflects a marked shift in the U.S.-Japanese semiconductor trade relationship, the structure of the Japanese market, and the participation of foreign firms in that market. This article briefly relates the major points of the three agreements, the current U.S. industry position, and the outlook in the Japanese market.*

During the 1980s, U.S. semiconductor firms continued to lose world market share to their Japanese competitors for a variety of reasons related to price competition, product quality, access to capital, and corporate alliances (figure 1).<sup>1</sup> This situation reached a significant juncture during a worldwide semiconductor recession in 1985 when the global market for a class of lucrative semiconductor memory chips, dynamic random access memories (DRAMs), dropped by 56 percent and prices collapsed, contributing to the departure from the market of all but two U.S. merchant producers, Micron Technology and Texas Instruments.<sup>2</sup> By 1985, the Japanese share of the overall U.S. semiconductor market had steadily increased to approximately 12 percent. In contrast, the U.S. share of the overall Japanese market had remained at approximately 10 percent since the mid 1970s, while U.S.-affiliated producers held dominant positions in all other major world-markets (figure 2).<sup>3</sup> The lack of an increase in the

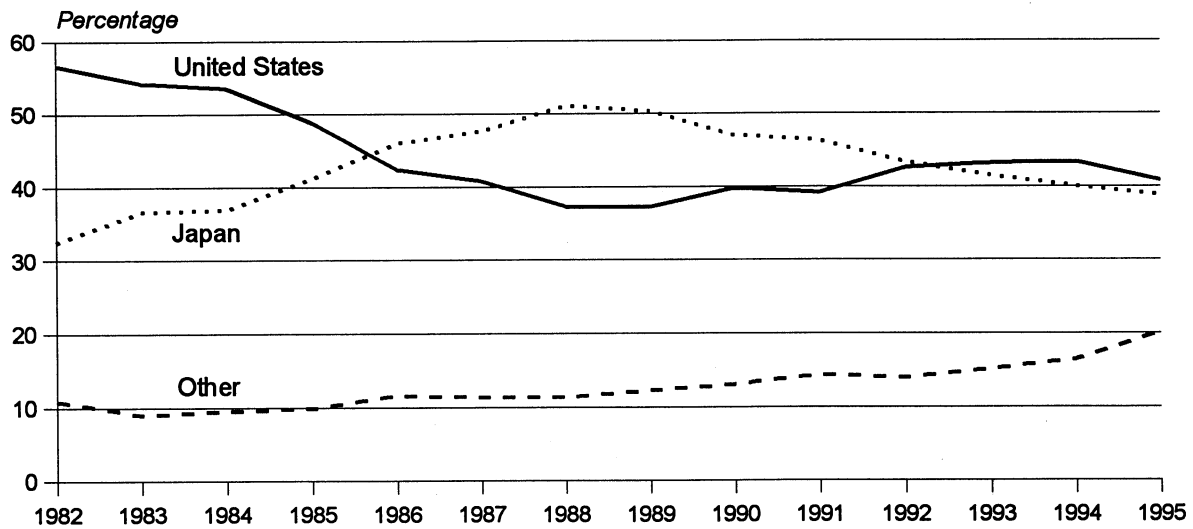
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<sup>1</sup> Semiconductors are integral components in nearly all electronic products including computers, telecommunications equipment, consumer electronics, industrial machinery, and automobiles. The semiconductor industry is a global enterprise and attribution of nationality to specific firms is problematic. For the purpose of this article, the production of a firm will be attributed to the country in which the headquarters of that firm resides.

<sup>2</sup> Integrated Circuit Engineering Corp., *Mid-Term 1996*, ed. Bill McLean (Scottsdale, AZ: Integrated Circuit Engineering Corp., 1996), p. 8-33. And, Douglas Irwin, *Trade Politics and the Semiconductor Industry*, In *The Political Economy of American Trade Policy*, ed. Ann O. Krueger, (Chicago, IL: University of Chicago Press, 1996), p. 35. Semiconductor firms can be divided into merchant and captive producers. In general, merchant firms produce semiconductors for sale to other companies while captive firms produce semiconductors for internal consumption.

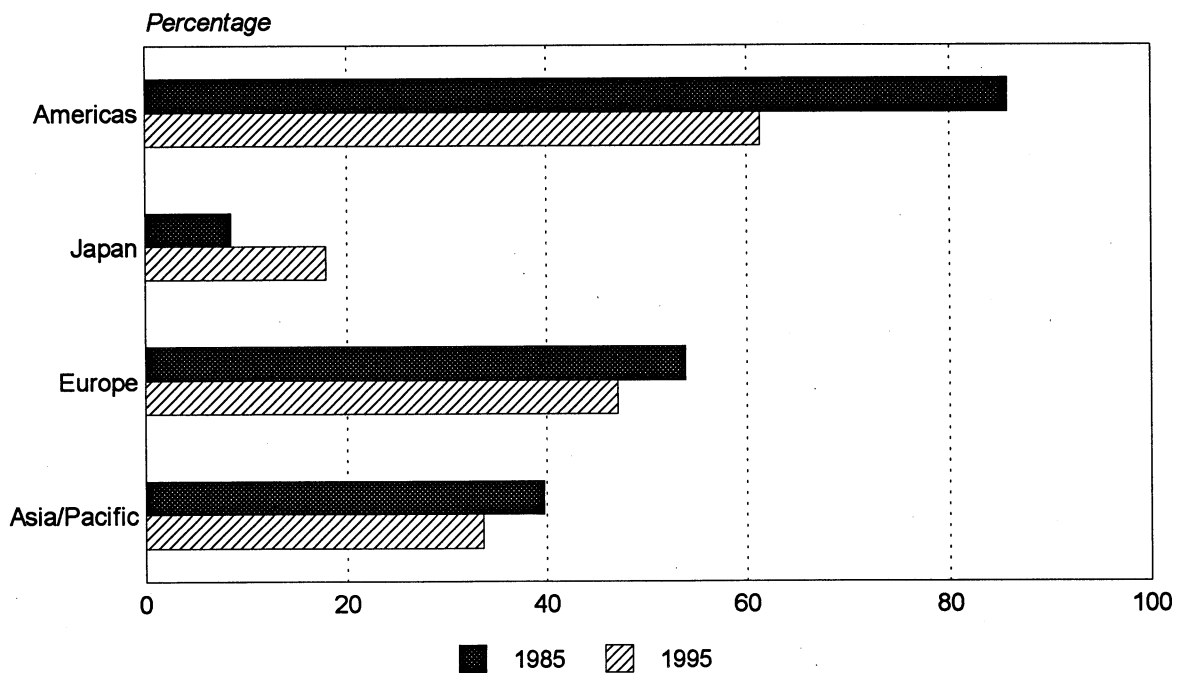
<sup>3</sup> According to the Semiconductor Industry Association, the share of the Japanese semiconductor market held by foreign-affiliated firms in 1985, excluding U.S.-affiliated firms, was 0.1 percent. Semiconductor Industry Association, *Semiconductor Industry Statistics*, <http://www.semichips.org/indstats/shares2.htm>, Jan. 9, 1997.

**Figure 1**  
Total worldwide semiconductor market share, 1982-95



Source: Semiconductor Industry Association.

**Figure 2**  
U.S. producer's share of selected semiconductor markets, 1985 and 1995



Source: Semiconductor Industry Association (SIA).

U.S. share of the Japanese market was thought by U.S. industry to be the result of structural barriers in Japan rather than tariff barriers.<sup>4</sup> Chief among the barriers cited was the interdependent structure of the Japanese industry. The Japanese producers of semiconductors are often large, vertically integrated firms that are also the end-users of the chips. Many sales of semiconductors occurred within firms or between affiliated firms within industrial groups, sometimes referred to as keiretsu, and were never opened for outside supplier competition.<sup>5</sup> Foreign-based firms, including U.S. firms, were perceived to be at a significant disadvantage in what was, at the time, the world's largest semiconductor market.

In 1985, in light of the perceived restrictions on access to the Japanese market and allegations by various U.S. producers that Japanese firms were dumping<sup>6</sup> certain memory chips in the United States as well as in third-country markets, the U.S. industry sought government assistance under U.S. trade laws:

- Micron Technology filed an antidumping petition against Japanese producers with the U.S. Department of Commerce (DOC) and the U.S. International Trade Commission (USITC) for 64 kilobyte-size (64K) DRAMs;<sup>7</sup>
- Advanced Micro Designs, Inc., Intel Corp., and National Semiconductor Corp., filed antidumping petitions with the DOC and USITC against Japanese producers of another semiconductor memory chip product, electronically programmable read only memories (EPROMs).<sup>8</sup>

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<sup>4</sup> Japan had eliminated import tariffs on semiconductors in 1985. The tariff had been previously reduced to 4.2 percent in 1982. For a detailed description of "structural barriers" as perceived by U.S. industry, see Alan William Wolff and others, *Japanese Market Barriers in Microelectronics, Memorandum in Support of a Petition Pursuant to Section 301 of the Trade Act of 1974 As Amended* (San Jose, CA: Semiconductor Industry, 1985), p. 10.

<sup>5</sup> For a more detailed description of corporate groups, known as "keiretsu," which explains unique features of Japan's distribution system, see USITC, *Phase I: Japan's Distribution System and Options for Improving U.S. Access*, publication 2291, June 1990, p. 48. Also see further explanation referenced in footnote 4.

<sup>6</sup> In general terms, dumping or selling at less than fair market value (LTFV) is selling a product in the United States at lower prices than the price for which it is sold in a home or third-country market. In the United States, material injury or the threat of material injury by reason of subject imports must also be proven.

<sup>7</sup> The antidumping provisions of Title VII of the Tariff Act of 1930, as amended, would have provided for the imposition of duties on Japanese semiconductor exports to the U.S. if the Commerce Department found that the Japanese producers were selling at LTFV and the USITC found that the selling of these chips materially injured or threatened to materially injure U.S. producers. See USITC, *64K Dynamic Random Access Memory Components from Japan* (investigation No. 731-TA-270), USITC publication 1862, June 1986. In the 64K final investigations, both the DOC and the USITC found in the affirmative and extra duties were assessed on Japanese exports to the United States of these products.

<sup>8</sup> See USITC, *Erasable Programmable Read Only Memories from Japan* (Investigation No. 731-TA-288), USITC publication 1927, Dec. 1986. The EPROM investigation also resulted in final affirmative findings by both the DOC and USITC but no extra duties were assessed in response to the adoption of the 1986 Semiconductor Arrangement.

- the DOC undertook the unusual step of self-initiating an antidumping investigation of Japanese DRAMs of the size of 256K and above,<sup>9</sup> and
- the trade association that represents U.S. semiconductor manufacturers, the Semiconductor Industry Association (SIA), filed a section 301 petition with the United States Trade Representative (USTR) to obtain assistance in gaining access to the Japanese market, allegedly protected from foreign producers by nontariff structural import barriers.<sup>10</sup>

## The 1986 Semiconductor Arrangement (July 1986-July 1991)

After much negotiating, in the summer of 1986, the Governments of the United States and of Japan entered into a Semiconductor Arrangement.<sup>11</sup> This arrangement had a 5-year life-span, resulted in the suspension of the EPROM and 256K-and-above DRAM antidumping investigations and possible 301 sanctions, and addressed each of the three areas of concern to U.S. producers: Japanese dumping in the U.S. market, alleged Japanese dumping in third-country markets, and market access opportunities for foreign semiconductor firms in Japan.<sup>12</sup>

The prevention against alleged dumping of EPROMs and 256K and above DRAMs in the U.S. market was centered around a suspension agreement between the interested Japanese companies and the DOC. In the agreement, Japanese firms were to report data on all sales to the United States in addition to expected and actual costs of production. The DOC was to use this information to calculate fair market value price-floors on a company-specific basis below which the Japanese companies agreed not to sell in the U.S. market. The arrangement stipulated that the Government of Japan would monitor and take appropriate measures to prevent sales to the United States by Japanese companies at LTFV.<sup>13</sup> In return, the DOC suspended the EPROM and 256K and above DRAM investigations and any duties that may have resulted which would have been applied to Japanese semiconductor devices exported to the United States.

The purpose of the third-country dumping provisions was to prevent the United States from becoming a "high-price island" which would have harmed U.S.-based semiconductor user industries or increased the incentive for them to move production offshore. However, the

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<sup>9</sup> See USITC, *Dynamic Random Access Memory Semiconductors of 256K and Above from Japan* (Investigation No. 731-TA-300), USITC publication 1803, Jan. 1986. After preliminary affirmative findings by both the DOC and USITC, the 256K and above DRAM investigation was suspended in the wake of the 1986 Semiconductor Arrangement.

<sup>10</sup> Section 301 of the Trade Act of 1974, as amended, allows for U.S. Government action on behalf of U.S. producers if the USTR determines that a foreign country has denied benefits to the U.S. under trade agreements or is otherwise engaged in unjustifiable, unreasonable, or discriminatory acts that burden or restrict U.S. commerce.

<sup>11</sup> The official title of the agreement is the "Arrangement between the Government of Japan and the Government of the United States of America Concerning Trade in Semiconductor Products."

<sup>12</sup> This language is significant as it calls for increased access to the Japanese semiconductor market for all foreign firms, not only U.S. firms.

<sup>13</sup> *1986 Arrangement*.

provisions in the arrangement regarding the prevention of third-country dumping were less precise. Although the Government of Japan was tasked with monitoring sales and cost information of Japanese firms to prevent third-country dumping, no particular actions or measures were specified to accomplish this duty.

The market access provisions in the text of the 1986 arrangement did not specify a timetable for increased foreign participation in the Japanese market or the level of that participation. The 1986 arrangement refers only to a "gradual and steady growth" and did not set date-specific growth targets. The arrangement also did not designate a final foreign market share goal for the Japanese market. However, in an initially undisclosed, but later published side-letter, the Japanese Government "recognized" the expectation of the U.S. semiconductor industry that the foreign share of the Japanese market would grow to at least slightly above 20 percent in 5 years and that the Government of Japan "considered that this could be realized and welcomed its realization."<sup>14</sup> The market access provisions of the arrangement also did not specify a formula for determining foreign market shares in Japan and each Government adopted a different formula.<sup>15</sup> This situation led to significantly differing market share calculations and perceptions of foreign participation in the Japanese market.<sup>16</sup> With regard to specifying measures to assist in the growth of foreign market shares, the public text of the Arrangement stated that the Japanese Government would impress upon Japanese producers and users the need to do business with foreign-based firms and assist in increasing foreign participation in the Japanese market. The side-letter further stipulated that the Government of Japan would encourage Japanese users to increase purchases of foreign semiconductors and assist "foreign-based companies" through the establishment of an organization to provide sales assistance and the promotion of long-term relationships between Japanese purchasers and foreign capital-affiliated companies.<sup>17</sup>

The 1986 Semiconductor Arrangement only partially succeeded in meeting stated goals. According to the General Accounting Office (GAO), which conducted a review of the arrangement at the request of Congress, the arrangement was successful in addressing the dumping in the U.S. market.<sup>18</sup> The fair market system administered by the DOC and reduced output by Japanese producers contributed to the end of the steep DRAM and EPROM price declines, and prices for DRAMs actually increasing for the first time in industry history during 1987-1989.<sup>19</sup> The price increases in DRAMs pushed the selling prices well above the

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<sup>14</sup> "Text of Secret Semiconductor Letter," reported in *Inside U.S. Trade*, Vol. 6, No.46, Nov. 18, 1988.

<sup>15</sup> The United States adopted the statistics generated by World Semiconductor Trade Statistics (WSTS), a private industry organized group, which did not count IBM production because it was not sold on the open market. The Japanese Ministry of International Trade and Industry (MITI) chose to construct its own formula which excluded numerous small Japanese consumers but included internal IBM transfer shipments to IBM-Japan.

<sup>16</sup> Kenneth Flamm, *Mismanaged Trade? Strategic Policy and the Semiconductor Industry* (Washington, D.C.: Brookings Institute Press, 1996), p. 280.

<sup>17</sup> Ibid.

<sup>18</sup> *International Trade Observations on the U.S.-Japan Semiconductor Arrangement* (Washington, D.C.: General Accounting Office, 1987), pp. 5-7.

<sup>19</sup> Integrated Circuit Engineering Corp., *Mid-Term 1996*, ed. Bill McLean (Scottsdale, AZ: Integrated Circuit Engineering Corp., 1996), p.8-39.

traditional semiconductor price curve and resulted in significant earnings for the two remaining U.S. merchant producers.<sup>20</sup>

According to the GAO, the provisions addressing the prevention of third-country dumping were not immediately successful, and U.S. firms continued to allege third-country Japanese dumping in 1986 and 1987. In April 1987, President Reagan, under section 301 of the Trade Act, imposed increased tariffs of \$300 million on certain Japanese electronics exports to the United States in response to "Japan's failure to fulfill its obligations" to curtail alleged third-country dumping, and Japan's lack of progress on increasing market access for foreign-affiliated firms.<sup>21</sup> However, by fall of 1987, the United States deemed Japan to be in "complete compliance with its dumping obligations" and dropped that portion of the sanctions (\$135 million) related to dumping.<sup>22</sup>

By the end of the arrangement, in July of 1991, foreign market shares in Japan had not reached 20 percent based upon either formula. However, based on the U.S. formula, the foreign market share in Japan had increased from approximately 9 percent in 1986 to approximately 14 percent in 1991.<sup>23</sup> Reasons reported for the increase include pressure by the Japanese MITI on Japanese industry, efforts by the Japanese industry and foreign-affiliated industry to facilitate relationships between Japanese users and foreign producers, and increased aggressiveness on the part of foreign-affiliated producers to enter and service the Japanese market.<sup>24</sup> In order to foster increased use of foreign semiconductors by Japanese semiconductor users, a Japanese trade association, the Electronic Industries Association of Japan (EIAJ), created the User's Committee of Foreign Semiconductors (UCOM). The UCOM was initially comprised of 57 Japanese semiconductor-using firms. Individual Japanese companies also offered opportunities for foreign producers to participate in numerous "design-ins," the important process where particular semiconductor devices are designed into the functioning of a specific end-product. In addition, non-Japanese producers, especially U.S. firms, became increasingly active in opening design centers, production facilities, and sales offices in Japan to service the Japanese market.<sup>25</sup>

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<sup>20</sup> Integrated Circuit Engineering Corporation, *Status 1989: A Report on the Integrated Circuit Industry*, ed. Bill McLean (Scottsdale, AZ: Integrated Circuit Engineering Corp., 1989), p. 2-3 and p. 2-9.

<sup>21</sup> United States Trade Representative, Section 301 Table of Cases, Japan Semiconductors (301-48), <http://www.ustr.gov/301/active.html>, Jan. 2, 1997.

<sup>22</sup> *Ibid.*, and Irwin page 54. The third-country dumping provisions were ruled GATT illegal in 1988 by a GATT panel in response to a European Community complaint. Having deemed Japan "in complete compliance" in 1987, the third-country dumping provisions were not included in the 1991 follow-on Arrangement.

<sup>23</sup> Semiconductor Industry Association, Chip Industry Statistics, <http://www.semichips.org/indstats/shares2.html>, and Flamm, p. 282.

<sup>24</sup> U.S. industry representatives, telephone interviews by USITC staff, Oct. 2-3, 1996.

<sup>25</sup> *Three Years of Experience Under the U.S.-Japan Semiconductor Agreement* (Cupertino, CA: Semiconductor Industry Association, 1989), pp.6-8.



## The 1991 Semiconductor Arrangement (July 1991-July 1996)

As the 1986 Arrangement neared its conclusion, the lower than expected foreign share of the Japanese market became the main impetus for U.S. Government and industry efforts to extend the pact. The 1991 Arrangement reflected that emphasis on increased market access by<sup>26</sup>--

- Including explicit language in the text recognizing the “expectation” that “gradual and steady” progress would be made toward a 20-percent market share by foreign firms in the Japanese market;
- Specifying two formulae under which foreign participation would be calculated;<sup>27</sup>
- Encouraging the continuation and expansion of existing collaborative efforts between Japanese consumers of semiconductors and foreign producers;
- Replacing the DOC fair market value system of price floors with a new, less burdensome, antidumping process;<sup>28</sup> and
- Arranging for the governments to meet at least three times per year for status appraisals. As a result of these agreements, the United States suspended the remaining \$165 million in increased tariffs from the 1987 section 301 sanctions and the DOC terminated the previously suspended 256K and above DRAM investigation.<sup>29</sup>

The stated goals of the 1991 Arrangement were largely achieved and in 1996 the USTR issued a statement declaring that “progress under the arrangement had been impressive.”<sup>30</sup> During the 1991 Arrangement, industry concerns regarding dumping lessened, and no U.S. firm filed an antidumping petition against a Japanese producer.<sup>31</sup> The main objective of the 1991

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<sup>26</sup> See “Arrangement Between the Government of Japan and the Government of the United States of America Concerning Trade in Semiconductor Products,” July 1991.

<sup>27</sup> Formula 1 does not reflect purely captive sales in Japan and defines the nationality of semiconductors as that of the headquarters of the final assembly. Formula 2 does include purely captive sales in Japan and defines nationality by brand name. In both cases, offshore production by Japanese-affiliated firms that is shipped to Japan is not considered as a Japanese import, but is added to the calculation of the overall Japanese market size. The U.S. Government chose to announce results only under formula 1, while the Japanese Government has announced results under both formula 1 and formula 2. See related information in appendix A (figure A-7).

<sup>28</sup> The antidumping regime set in place under the 1991 Arrangement required Japanese producers to maintain data on sales and production costs. This data, if necessary, would then be made available to the DOC upon 14-day notice in the event of future antidumping proceedings. As noted earlier, provisions regarding third-country dumping were not included in the 1991 Arrangement.

<sup>29</sup> United States Trade Representative, Section 301 Table of Cases, Japan Semiconductors (301-48), <http://www.ustr.gov/301/active.html>. Jan. 3, 1997.

<sup>30</sup> United States Trade Representative, press release No. 96-65, <http://www.ustr.gov/releases/1996/08/96-65.html>, Aug. 8, 1996.

<sup>31</sup> Antidumping petitions were filed in 1992 by a U.S. firm naming three South Korean manufacturers. For more information, please see USITC, *DRAMs of One Megabit and Above From* (continued...)

Arrangement, increasing market access, was also achieved, as the growth in foreign market shares exceeded expectations. In the fourth quarter of 1992, foreign market shares surpassed 20 percent under both formulas for the first time. In the second quarter of 1996, the last reporting period under the 1991 Arrangement, the foreign market share was at approximately 26 percent (see appendix A-7).<sup>32</sup> The value of foreign sales in Japan increased from less than \$1 billion in 1986 to approximately \$9.4 billion in 1995.<sup>33</sup> In 1995, U.S.-affiliated firms held nearly 18 percent of the total Japanese semiconductor market while Japan-affiliated firms held approximately 23 percent of the U.S. market.

A number of factors are likely responsible for the increase in foreign participation in the Japanese market. In response to increased efforts by the Japanese Government and industry efforts to incorporate foreign chips into Japanese end-products, foreign-affiliated firms participated in a growing number of Japanese design-ins. Although the increase in trade value accounted for by these design-ins may not be significant, the number of design-ins rose steadily, according to EIAJ, from 100 in 1986 to more than 900 in 1995.<sup>34</sup> Foreign-affiliated firms, especially U.S. firms, have used opportunities created by Japanese user organizations, such as UCOM and the International Semiconductor Center, to increase their presence and success in Japan by better serving Japanese customers. This has been accomplished, according to EIAJ and SIA, through the growth in the number of sales offices, design centers, testing, and production facilities (often in the form of joint ventures) which foreign-affiliated firms have established in Japan. In addition, according to EIAJ, U.S.-affiliated companies have markedly improved the quality, cost, and servicing of their products in Japan.<sup>35</sup> South Korean and to some extent Taiwan-affiliated firms are also making significant progress in the Japanese market (figure 3). Firms from these countries have concentrated largely in the production of commodity type chips, primarily DRAMs. They have developed large production capacities of quality semiconductors that are price-competitive with Japanese producers and have won substantial world and Japanese market shares.<sup>36</sup>

A second factor has been a shift in the Japanese market toward the increased use of semiconductors in which U.S.-affiliated firms are leaders in production. This shift has been a combination of the movement offshore of Japanese production of low-end consumer electronics

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<sup>31</sup> (...continued)

*the Republic of Korea* (investigation No. 731-TA-556), USITC publication 2629, May 1993.

<sup>32</sup> At the time of the writing of this article, the last reported data on foreign market share in the Japanese semiconductor market (second quarter 1996) was 26.4 percent under formula 1, and 26.8 percent under Formula 2. According to the SIA, although the foreign market share in Japan dropped approximately 3 percentage points since the fourth quarter of 1995, the U.S. share actually increased slightly. South Korean firms, the other principal foreign suppliers of DRAMs to the Japanese market have been the primary losers of market share in Japan in 1996. This is reflective of the 1996 global slump in DRAM prices.

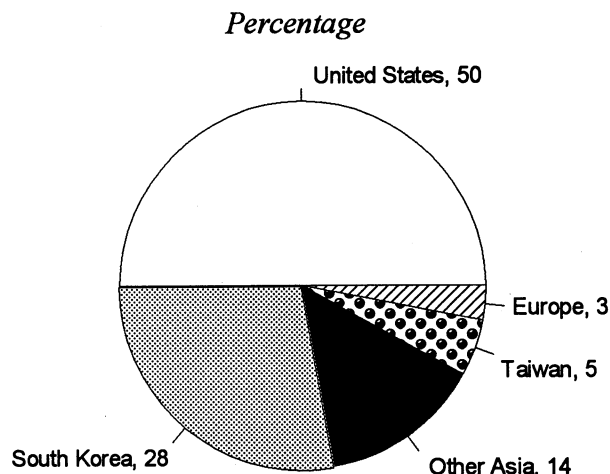
<sup>33</sup> *Mid-Term 1996*, ed. Bill McLean (Scottsdale, AZ: Integrated Circuit Engineering) Aug. 1996, page 1-30.

<sup>34</sup> EIAJ, *White Paper Mission Accomplished: Why a Semiconductor Agreement is no Longer Needed*, <http://www.eiaj.org>, Aug. 15, 1996.

<sup>35</sup> *Ibid.*

<sup>36</sup> Japan Economic Foundation, *On the Japan-U.S. Semiconductor Arrangement*, [http://www.jef.or.jp/news/jp\\_us.html](http://www.jef.or.jp/news/jp_us.html), Aug. 23, 1996. The world market share of non-Japanese Asian firms has increased from 1 percent in 1985 to 12 percent in 1995.

Figure 3  
Japanese integrated circuit imports, by country of origin, 1995



Note: Does not attribute off-shore production of U.S.-affiliated firms to the United States.  
Source: Ministry of Finance/ICE, "Mid-Term 1996."

products for which U.S.-affiliated firms are not major semiconductor suppliers, as well as the increased production in Japan of high-end products for which U.S. firms are major semiconductor suppliers. As a result, computers and other applications that require high-end semiconductors are becoming increasingly larger shares of the total value of semiconductor consumption in Japan (figure 4). The Japanese computer industry in particular, increasingly incorporates high-end U.S. produced semiconductors in its computer equipment. According to EIAJ, unit shipments of computers in Japan have increased over 200 percent from 1991-1995.<sup>37</sup> And, according to Dataquest, the value of shipments of personal computers in Japan increased by 46 percent in 1995 over 1994.<sup>38</sup> Since the late 1980s, the merchant U.S. industry has largely migrated from commodity chips to higher end specialized components. This shift has better positioned U.S. firms, which now dominate world production of many of these products, to become major suppliers to the Japanese. U.S.-affiliated firms reportedly now hold nearly 75 percent of the total Japanese microprocessor market and nearly 70 percent of the total Japanese digital signal processor market.<sup>39</sup> According to U.S. industry representatives, U.S.-affiliated firms are competing successfully in the Japanese market at the high end, and South Korean and Taiwan-affiliated firms are beginning to compete successfully at the low end.<sup>40</sup>

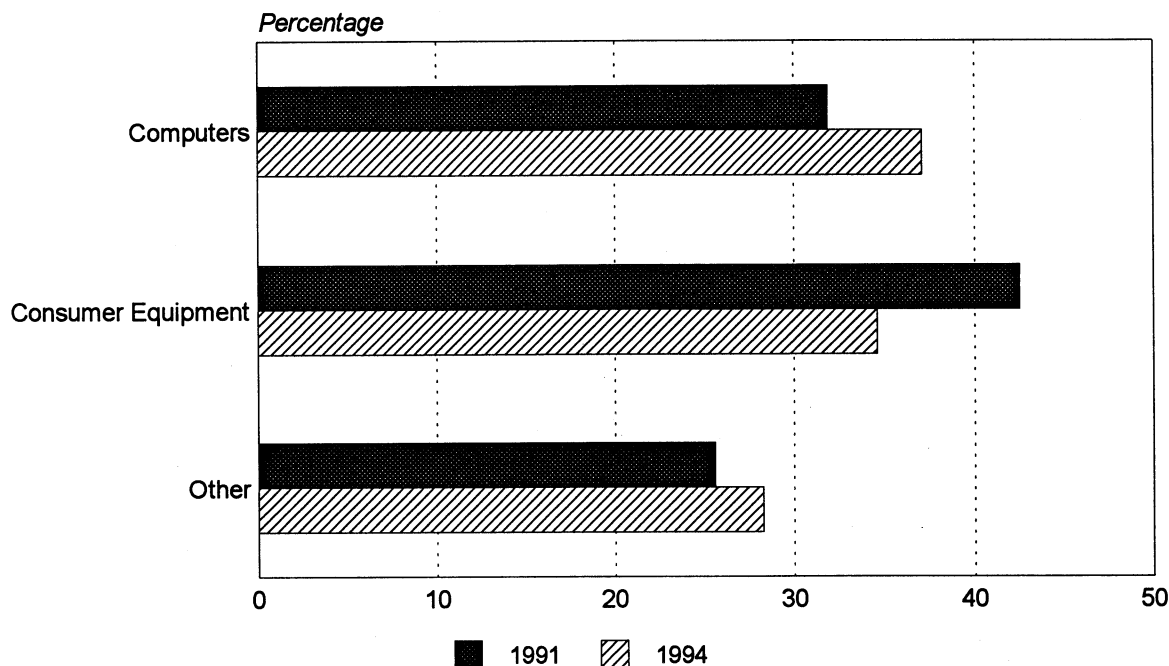
<sup>37</sup> Electronic Industries Association of Japan, *Facts and Figures of the Japanese Electronics Industry* (Tokyo: EIAJ, 1996), p. 35.

<sup>38</sup> Dataquest, abstract of *Japanese PC market grew by 71 percent in 1995*, <http://www.dataquest.com/register/abstract/pcis-ap-da-9601-ab-0001.html>, Jan. 3, 1997

<sup>39</sup> Japan Economic Foundation, *On the Japan-U.S. Semiconductor Arrangement*, <http://www.jef.or.jp/news/jp-us.html>, Aug. 23, 1996. And, U.S. industry representatives, interview by USITC staff, Sept. 22, 1996. Microprocessors are the controlling chip, or "brains" in computers. Digital signal processors are a type of microcontroller that digitalizes analog signals in such devices as telecommunications equipment and computers.

<sup>40</sup> U.S. industry representatives, interview by USITC staff, Sept. 22, 1996.

**Figure 4**  
Change in the value of the semiconductor demand structure and sector share of Japanese consumption, 1991 and 1994



Source: EIAJ

## The 1996 Agreements (August 1996-Present)

The Japanese industry believed that the goals of the 1991 Arrangement had been achieved and that an extension was unnecessary.<sup>41</sup> However, the U.S. industry was interested in renewal of the 1991 Arrangement, pointing toward the improved market access that had occurred and concern over a possible reversion to the mid 1980s situation in the absence of a new agreement.<sup>42</sup> Reflecting these positions, the United States sought to continue with a government-to-government pact while Japan did not wish to create a third bilateral semiconductor trade agreement. After intense negotiations and compromise, agreement was reached.<sup>43</sup> The 1996 accord differs substantially from the earlier arrangements in structure and

<sup>41</sup> EIAJ, *White Paper Mission Accomplished: Why a Semiconductor Agreement is no Longer Needed*, <http://www.eiaj.org>, Aug. 15, 1996.

<sup>42</sup> Semiconductor Industry Association, *Narrowing the Gap: The Case for Continuing Cooperation with Japan* (Cupertino, CA: SIA, Mar. 1996).

<sup>43</sup> For more on the 1996 Agreements and especially the negotiations leading up to the agreements, see Diane Manifold, *United States and Japan Reach Another Agreement on Semiconductors*, in *International Economic Review* (Washington, DC: USITC, Sept. 1996), pp.7-9.

composition and is actually a set of two agreements, one government-to-government and one industry-to-industry (EIAJ and SIA).<sup>44</sup>

Within the Government Joint Statement, both parties recognize that the private sector and the competitiveness of individual companies, not government intervention, have primary responsibility in determining success in international semiconductor trade.<sup>45</sup> The Joint Statement makes no mention of market share goals and largely moves the responsibility of monitoring to the respective industries as the governments will no longer jointly collect and publish market share data.<sup>46</sup> The Governments also agreed to meet jointly at least once a year to discuss semiconductor issues including competitiveness, foreign participation, and market trends. These meetings would be based upon information given to the Governments by their respective industry associations. Both Governments renewed their recognition of the need to avoid injurious dumping, and, while not included in the initial agreements, the SIA and EIAJ concluded a separate antidumping regime in December of 1996.<sup>47</sup> Under the accord, the two Governments also agreed to establish a Global Government Forum (GGF) to facilitate "sound development of the semiconductor industry." The GGF would be open to participation without precondition to any major semiconductor-producing country. Issues expected to be discussed within the GGF are the liberalization of tariffs and regulations, standardization, and environmental concerns. The activities of the Government Agreement are to be terminated July 31, 1999, unless otherwise agreed.

The industry accord also acknowledges the importance of competitiveness and market principles as the primary determinants of industrial success and echoes the government pact's recognition of the need to avoid injurious dumping.<sup>48</sup> The Industry Agreement calls for a continuation in the Japanese market of existing user-producer collaboration such as seminars, exhibitions, and the retention of UCOM for an additional 3 years. Greater across the board cooperation is called for in technical standardization, environmental issues, worker health and safety, intellectual property rights, trade and investment liberalization, and market development. To increase available information and understanding, the Industry Agreement calls for data accumulation and analysis, including market size, growth, and shares by the industries. No specific formulas

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<sup>44</sup> The title of the 1996 Government agreement is "Joint Statement by the Government of Japan and the Government of the United States Concerning Semiconductors." The title of the industry agreement is "Agreement Between EIAJ and SIA on International Cooperation Regarding Semiconductors."

<sup>45</sup> See "Joint Statement by the Government of Japan and the Government of the United States Concerning Semiconductors."

<sup>46</sup> The USTR has announced that the U.S. Government will unilaterally continue to calculate foreign market share in Japan in a manner consistent with the Formula 1 of the 1991 Arrangement "until it is clear that the new system will function effectively." See USTR press release No. 96-98, dated Dec. 20, 1996, <http://www.ustr.gov/release/1996/12/96-98.html>.

<sup>47</sup> On Dec. 19, 1996, the SIA and EIAJ announced an agreement to initiate an antidumping regime similar to the one contained in the 1991 Arrangement. However, unlike the prior two arrangements that generally placed the burden of data collection solely on Japanese producers, the new regime would also require U.S. companies to collect production and sales data. Implementation of this new regime is predicated on the DOC terminating, at the request of the U.S. complainants, the long suspended EPROM dumping complaint against Japanese producers.

<sup>48</sup> See "Agreement Between EIAJ and SIA on International Cooperation Regarding Semiconductors."

or methods were adopted, and reports may be issued jointly or separately by the respective trade associations.<sup>49</sup> To facilitate and coordinate this interaction and cooperation, the Industry Agreement established the Semiconductor Council. Initially, the Semiconductor Council will comprise only the SIA and EIAJ; however, membership will be opened to the semiconductor trade association of any country that has eliminated all semiconductor tariffs or has committed to do so (the United States and Japan have already done so).<sup>50</sup> The Semiconductor Council is intended to offer a central forum for addressing market access matters as well as the promotion of international semiconductor cooperation and industry growth. It will meet at least once yearly and after 3 years will be subject to dissolution in whole or part.

## U.S. Industry Status and Outlook

U.S.-affiliated firms have made significant progress in increasing sales to the Japanese market during the 1986 and 1991 Arrangements. They have succeeded in having their semiconductors designed into numerous Japanese products and have entrenched themselves in certain product sectors. The provisions of the Arrangements, including the fostering of cooperative relationships between U.S.-affiliated producers and Japanese consumers, are certainly responsible for a portion of the market access gains. However, larger changes in the U.S. industry that occurred during this time are also likely contributors. One of these transformations was the advent of inter-industry and industry-government cooperation. In 1984, the National Cooperative Research Act amended U.S. antitrust law and cleared the way for U.S. firms to participate in cooperative research and development. In 1987, a government-industry consortium, Sematech, was established to improve the manufacturing processes and technology of the U.S. industry. According to SIA, these events have been integral to improvements in the competitiveness of the U.S. industry.<sup>51</sup> In addition, a structural shift occurred within the U.S. industry. Primarily as a result of intense Japanese competition, the bulk of the U.S. industry moved away from the production of commodity-type semiconductors such as DRAMs and toward the production and development of more specialized chips during the late 1980s and early 1990s.<sup>52</sup> Production of these chips requires more advanced technical expertise and often results in higher margins and fewer competitors.

This shift by the U.S. industry coincided with the rapid growth in the global and Japanese markets for computer equipment and other applications requiring high-end digital semiconductors. Partially as a result of this shift, the U.S. industry, which dominates the production of these devices, underwent a recovery and reclaimed the lead in global

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<sup>49</sup> As of the writing of this article, the SIA and EIAJ have been engaged in negotiations to arrive at agreeable formulas for calculating market share. To date, the SIA's desire to retain capital affiliation as one measure (similar to formula 1 of the 1991 Arrangement) has met with resistance from the EIAJ.

<sup>50</sup> The initial meeting of the Semiconductor Council has been scheduled for March 1997, in order to allow time for Korea, Taiwan, and the EU, to meet the tariff elimination requirements necessary for the participation of their respective trade associations.

<sup>51</sup> Semiconductor Industry Association, *Status Report and Industry Directory, 1996-1997* (San Jose, CA: SIA, 1996), pp.5-32.

<sup>52</sup> Michael Marks, "Industrial Policy at Work or True Grit?," *Technology Transfer Business* (Los Angeles, CA: Technology Transfer Society, summer 1993), pp. 29-33.

semiconductor production in 1992 (figure 1). It is in the sale of specialized, high-end chips such as microprocessors, microcontrollers, and certain application specific devices, that U.S.-affiliated firms have been most successful in the Japanese market. As long as U.S.-affiliated manufacturers maintain technological leads in these products, they will likely continue to hold strong positions in the Japanese market. In contrast, U.S.-affiliated firms have been less successful in the low-end of the Japanese market because Japan-made substitutes are available and competition from lower cost South Korean and Taiwan producers is intense. ■





## Appendix A

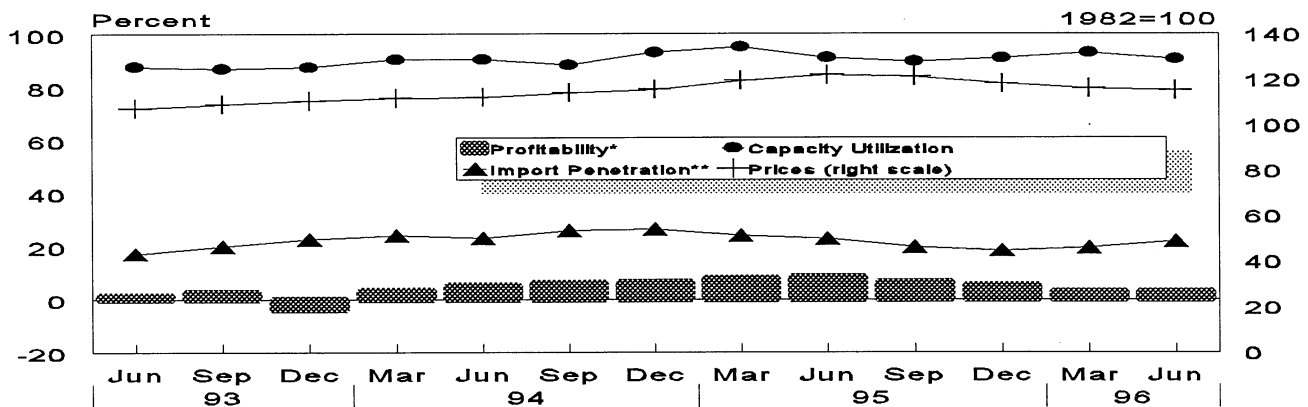
### **Key Performance Indicators of Selected Industries**

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- STEEL** (Felix Bello, 202-205-3120/fbello@usitc.gov)
- AUTOMOBILES** (Deborah McNay, 202-205-3425/mcnay@usitc.gov)
- ALUMINUM** (Karl S. Tsuji, 202-205-3434/tsuji@usitc.gov)
- SERVICES** (Christopher Melly, 202-205-3461/melly@usitc.gov)
- SEMICONDUCTORS** (Robert Carr, 202-205-3402/rcarr@usitc.gov)

STEEL

Figure A-1  
Steel mill products, all grades: Selected industry conditions



\* Operating income as a percent of sales for companies representing about 66 percent of production.

\*\* Import share of apparent open market supply.

Source: American Iron and Steel Institute, U.S. Bureau of Labor Statistics

- Demand in steel consuming industries remained strong during the second quarter, with shipments rising 3.3 percent. For the first six months of the year, domestic shipments reached 50.6 million tons, the highest level since 1981 when first half shipments reached 47.7 million tons. However, declining prices have not allowed the industry to capitalize on the strong quarterly shipment trend, as sales for the first half declined 4 percent and operating profits of \$252 million were 64 percent below the second quarter of 1995.
- Although imports rose 12 percent from the first quarter, levels for the first half are still 13 percent below last year's January through June numbers. Semifinished imports rose even more strongly, up 19 percent for the quarter, driven by a 36.1 percent increase from March to April in response to equipment outages. Meanwhile, exports fell 15 percent (to 1.3 million tons) from the first quarter but rose 2 percent for the year-on-year six-month period. The year-to-date declining and rising trends in imports and exports, respectively, along with flat to declining prices despite high shipment volume, may represent the impact of new additional capacity in domestic and international steel industries. Import penetration in June (22 percent) was higher than in March (19 percent) whereas imports' share of apparent open market supply was 11 percent below levels one year ago.

<sup>1</sup> Based on financial data reported to the American Iron and Steel Institute by producers accounting for approximately 66 percent of domestic production.

Table A-1  
Steel mill products, all grades

Item	June 1996	Percentage change, June 1996 from March 1996 <sup>1</sup>	January-June 1996	Percentage change, Jan.-Jun. 1996 from Jan.-Jun. 1995 <sup>1</sup>
Producer's shipments (1,000 short tons) . . . . .	8,335	3.3	50,557	2.3
Imports (1,1000 short tons) . . . . .	295	20.6	12,413	-13.0
Exports (1,000 short tons) . . . . .	395	-15.3	2,751	2.0
Apparent supply ((1,000 short tons) . . . . .	10,225	7.6	60,219	-1.3
Ratio of import to apparent supply (percent) . . . . .	22.3	8.9	-20.9	-10.7

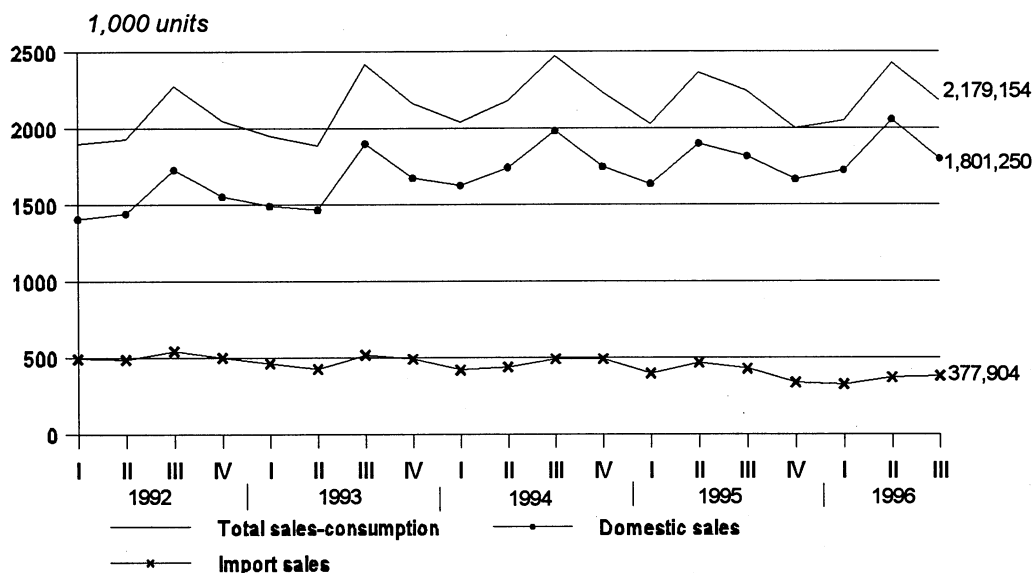
<sup>1</sup> Based on unrounded numbers

Note.—Because of rounding, figures may not add to the totals shown.

Source: American Iron and Steel Institute.

AUTOMOBILES

Figure A-2  
 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-2

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, Jan. 1995-Sept. 1996

Item	July-Sept. 1996	Jan.-Sept. 1996	Percentage change—	
			July-Sept. 1996 from Apr.-June 1996	Jan.-Sept. 1996 from Jan.-Sept. 1995
U.S. sales of domestic autos (1,000 units) <sup>1</sup>	1,801	5,584	-12.4	5.8
U.S. sales of imported autos (1,000 units) <sup>2</sup>	378	1,072	2.4	-10.4
Total U.S. sales (1,000 units) <sup>1,2</sup>	2,179	6,655	-10.2	2.8
Ratio of U.S. sales of imported autos to total U.S. sales (percent) <sup>1,2</sup>	17.3	16.1	14.0	-12.8
U.S. sales of Japanese imports as a share of the total U.S. market (percent) <sup>1,2</sup>	9.2	8.5	16.8	-30.2

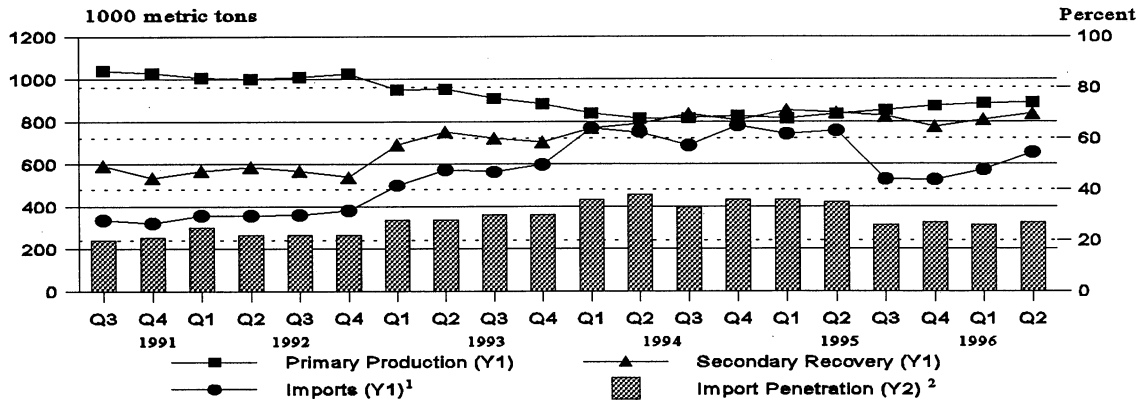
<sup>1</sup> Domestic automobile sales include U.S.-, Canadian-, and Mexican-built automobiles sold in the United States.

<sup>2</sup> Does not include automobiles imported from Canada and Mexico.

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

ALUMINUM

Figure A-3  
Aluminum: Selected U.S. industry conditions--

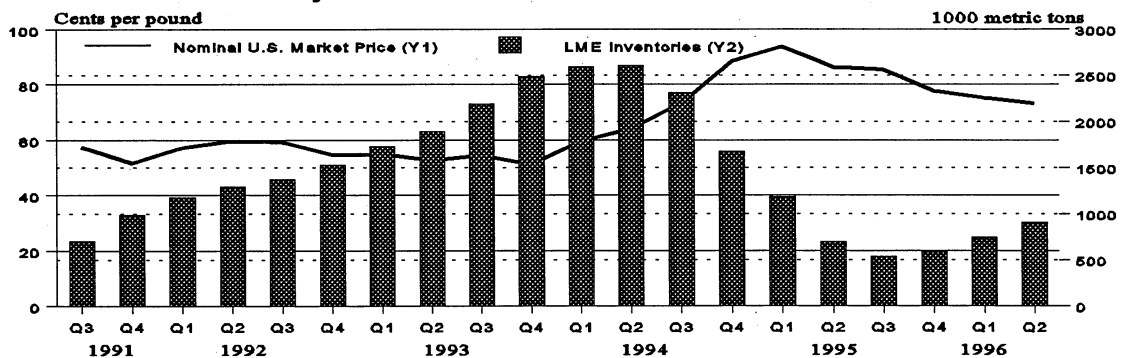


<sup>1</sup>Crude (metals and alloys) and primary (e.g. plates, sheets, and bars) forms for consumption.  
<sup>2</sup>Percent share of imports to apparent domestic supply.

Source: U.S. Geological Survey.

- Global production continued to exceed demand in the 2nd quarter 1996, increasing LME inventories for a third straight quarter to 906,000 metric tons. This was 70 percent higher than the nadir of 531,000 metric tons in Fall 1995.
- The U.S. market was more active in the 2nd quarter 1996, in anticipation of the expiration of labor contracts at the end of May. Production of both primary ingot and recovery of aluminum from scrap increased, with total production exceeding 1.7 million metric tons. The price of primary ingot dropped rapidly at the beginning of June, as the threat of output disruption diminished with news of quick labor settlements and signing of long-term contracts at Alcoa and Reynolds; the average price for primary ingot dropped five cents per pound in June to 69.9 cents to push the quarterly average price to a new low of 73.2 cents per pound.
- There was also increased activity in U.S. imports of unwrought and semi-manufactured aluminum which rose 15 percent to 656,000 metric tons. Import penetration increased slightly in the 2nd quarter, from 25 percent to 27 percent.

Figure A-4  
Aluminum: Price and inventory levels--

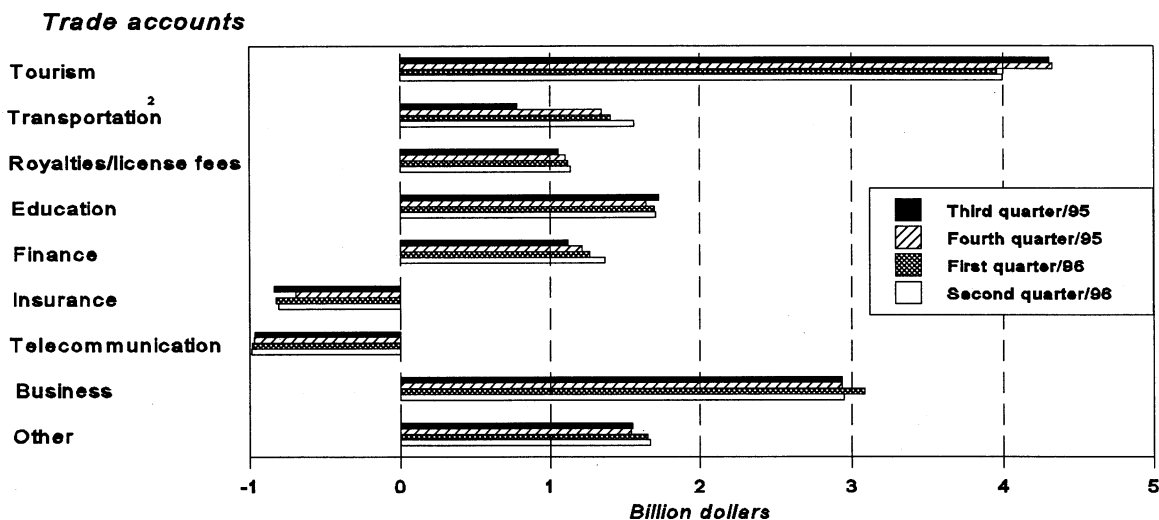


<sup>1</sup> Quarterly average of the monthly U.S. market price of primary aluminum ingots.  
<sup>2</sup> End of quarter inventories.

Sources: U.S. Geological Survey, World Bureau of Metal Statistics, Metals Week, and U.S. Bureau of Economic Analysis.

SERVICES

Figure A-5  
 Balance on U.S. service trade accounts, third quarter 1995 through second quarter 1996<sup>1</sup>

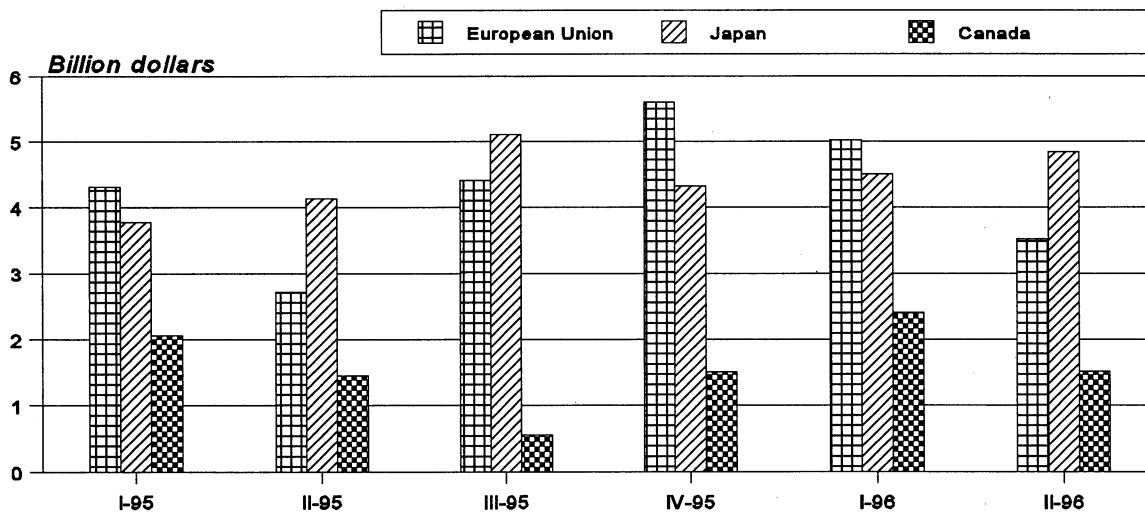


<sup>1</sup> Figures reflect trade among unaffiliated firms only.

<sup>2</sup> Includes port fees.

Source: Bureau of Economic Analysis, *Survey of Current Business*.

Figure A-6  
 Surpluses on cross-border U.S. service transactions with selected trading partners, by quarter, 1995-96<sup>1</sup>

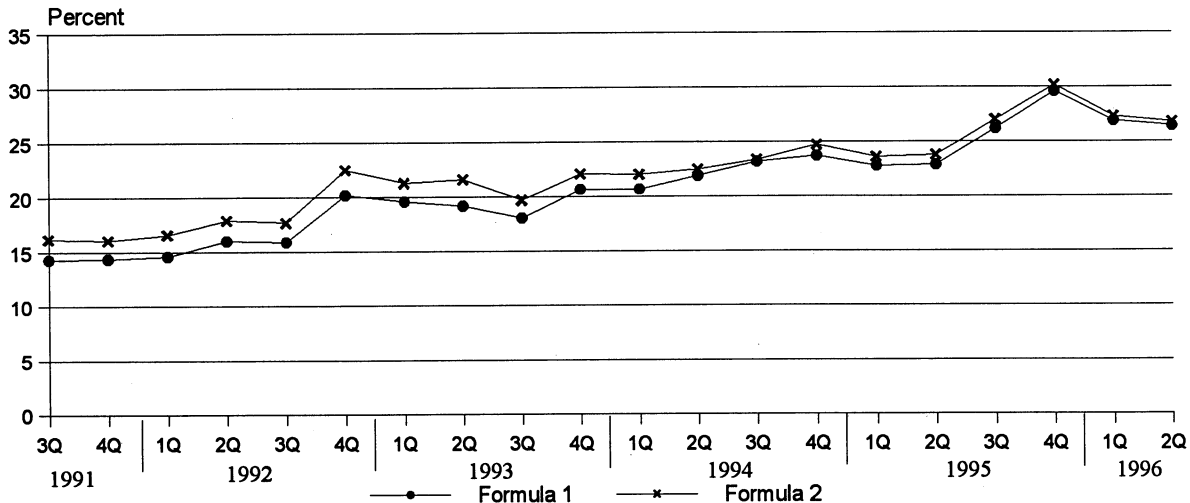


<sup>1</sup> Figures reflect private-sector transactions only; military shipments and other public-sector transactions have been excluded.

Source: Bureau of Economic Analysis, *Survey of Current Business*.

SEMICONDUCTORS AND OTHER ACTIVE COMPONENTS

Figure A-7  
Trend in foreign market share in Japan under the 1991 U.S.-Japan Semiconductor Arrangement



Source: United States Trade Representative; Ministry of International Trade and Industry, Japan.

- The foreign market share (based on value) in Japan’s semiconductor market declined in both the first and second quarters of 1996. This decline is largely associated with the sharp drop in 1996 in the global demand and price of dynamic random access memory chips (DRAMs). South Korean firms, the primary foreign suppliers of DRAMs to the Japanese market, were the most affected by lost market share. According to the Semiconductor Industry Association of the United States (SIA), the share of the Japanese market held by U.S. firms actually increased in the first half of 1996. This occurred because U.S. firms are largely uninvolved in DRAM sales to the Japanese market and have instead become major suppliers of high-end semiconductors such as microprocessors and microcontrollers which have retained high demand. See related article on page 45.
- The above figure contains new market share data for the second quarter of 1996 (the last covered under the 1991 U.S.-Japan Semiconductor Arrangement) as well as revised data for the first quarter. According to the USTR, data released earlier for the first quarter (see July 1996 ITTR) have since been revised downward as a result of “erroneous” data provided by the Japanese government. The errors were reportedly due to Japanese conversion to the harmonized tariff system.
- In August of 1996, the United States and Japan came to an agreement on the replacement of the 1986 and 1991 Semiconductor Arrangements. The 1996 U.S.-Japan Semiconductor Arrangements are a marked divergence from the previous two pacts. The negotiations resulted in two agreements, one government-to-government, and one industry-to-industry. Both agreements provide for the creation of new consultative bodies. The governmental body, the Global Governmental Forum, is open to the government of any country that produces semiconductors and is a departure from the bilateral structure of the previous arrangements. The industry forum, the Semiconductor Council, will initially include only the SIA and the Electronic Industries Association of Japan (EIAJ). However, the Council will be open to the industry association of any country that has eliminated its tariffs on semiconductors (the United States and Japan have already done so). In light of the imminent signing of an Information Technology Agreement (which mandates the elimination of tariffs on semiconductors as well as other products by the year 2000), the Semiconductor Council could soon include the industry associations of South Korea, Taiwan, and the European Union. The inaugural meeting is scheduled for March of 1997.
- The texts of the agreements largely call for continued and increased cooperation between the Japanese semiconductor users and foreign-owned suppliers. Cooperative ventures such as product “design-ins” and user-producer seminars promoted under the previous two arrangements were identified in the new agreements along with calls for their continuation and expansion. Unlike the explicit 20 percent goal of the 1991 Arrangement, neither of the new agreements contains any language regarding market share targets for foreign producers in the Japanese market. However, the U.S. government intends to continue tracking foreign market share in the Japanese market until the new data reporting regime called for in the Agreements is satisfactorily instituted. The antidumping regimes instituted in the first two arrangements had also been largely discarded; however, the SIA and EIAJ recently announced an addenda to the agreements which has reinstated much of the rigorous data reporting requirements on Japanese producers of certain memory chips. For the first time, these requirements will now also be applied to U.S. producers.

