

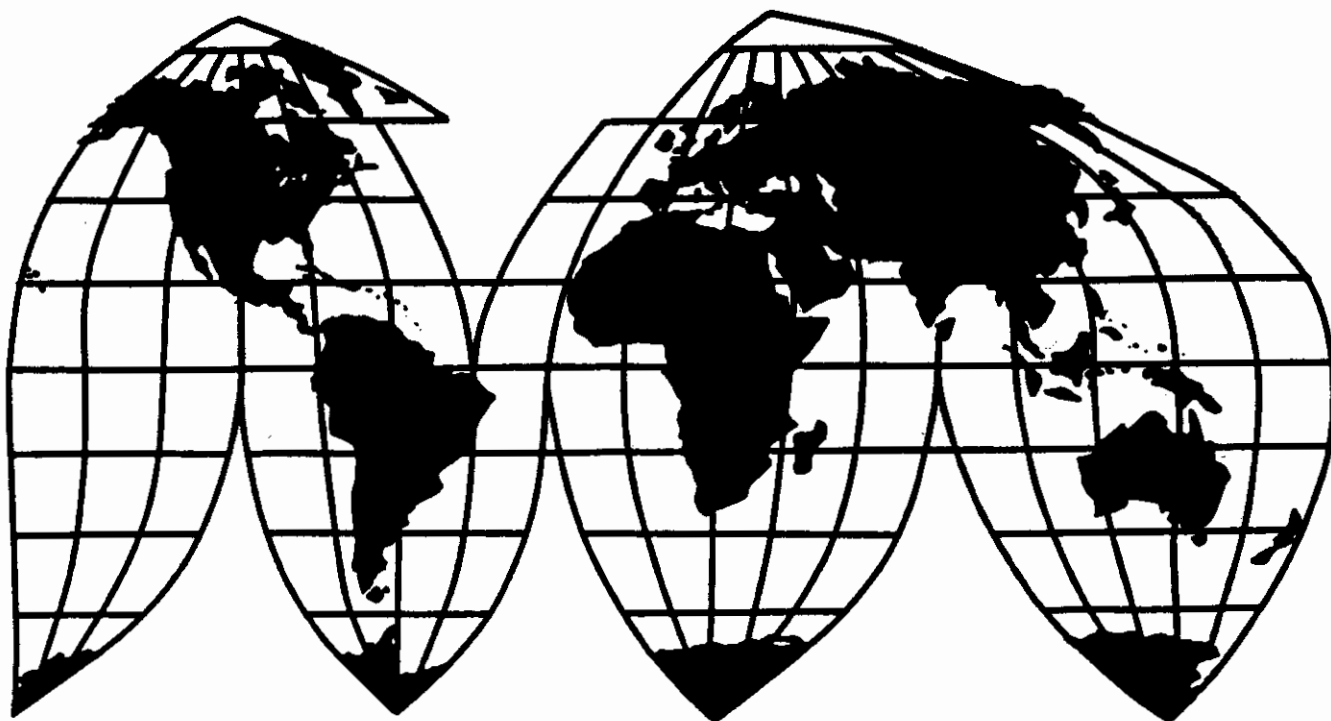
# **The Economic Effects of Antidumping and Countervailing Duty Orders and Suspension Agreements**

**Investigation No. 332-344**

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**U.S. International Trade Commission**



# **U.S. International Trade Commission**

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**Address all communications to  
Secretary to the Commission  
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Washington, DC 20436**

# **THE ECONOMIC EFFECTS OF ANTIDUMPING AND COUNTERVAILING DUTY ORDERS AND SUSPENSION AGREEMENTS**

## **Project Staff**

### ***Project Leaders***

Robert Rogowsky, Arona Butcher

### ***Study Coordinator***

Peggy MacKnight

### ***Office of Industries***

Peggy MacKnight, Dennis Fravel

### ***Office of Economics***

Nancy Benjamin, Bruce Blonigen, Michael Ferrantino,  
Joseph Flynn, Michael Gallaway, Keith Hall

### ***Office of General Counsel***

Robin Turner

### ***Primary Reviewers***

Robert Carpenter, Edwin Madaj

## **Case Study Teams**

### ***Frozen Concentrated Orange Juice***

Cathy Jabara, Alfred Dennis, Stephen Burket

### ***Lamb Meat***

Cathy Jabara, Rose Steller, David Ludwick, Ronald Babula, James Stewart

### ***EPROMS***

Arona Butcher, Scott Baker, Andrew Malison, Mary Messer

### ***Color Picture Tubes***

Arona Butcher, Scott Baker, John Kitzmiller, Olympia Hand

### ***Solid Urea***

Cynthia Trainor, Gerald Benedick, Christopher Taylor, Tedford Briggs

### ***Brass Sheet and Strip***

David Lundy, Douglas Puffert

### ***Standard Welded Steel Pipes and Tubes***

Peg MacKnight, Kyle Johnson, Felix Bello, Larry Reavis

### ***Certain Bearings***

Dennis Fravel, Hugh Arce, James Tsao  
Laura Polly, Adam Topolansky, James McClure

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Economic Research: Catherine DeFilippo, Robert Feinberg  
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Data: Janice Wayne, Elaine Freeman, Link Shields, Suzanne Senor  
Dean Moore, Andrew Parks, Sharon Greenfield  
Presentation: Pamela Dyson, Joyce Bookman, Paulette Henderson, Zema Tucker



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# PREFACE

Following receipt on June 9, 1993, of a request from the United States Trade Representative (appendix A), the U.S. International Trade Commission instituted investigation No. 332-344 under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) on July 1, 1993. The purpose of this report is to analyze the economic effects of antidumping and countervailing duty orders and suspension agreements and the economic effects of the dumping and subsidy practices that such orders and agreements address.

Copies of the notice of the investigation were posted in the Office of the Secretary, U.S. International Trade Commission, Washington, DC 20436, and the notice was published in the *Federal Register* (58 F.R. 37966-37967) on July 14, 1993 (appendix B). The Commission held a public hearing in connection with the investigation on September 29-30, 1994. All persons were allowed to appear by counsel or in person, to present information, and to be heard. In addition, interested parties were invited to submit written statements concerning the investigation (see appendix C for list of submissions and hearing participants).

The information and analysis in this report are for the purpose of this report only. Nothing in this report should be construed to indicate how the Commission would find in an investigation conducted under other statutory authority covering the same or similar matter.



# GLOSSARY OF ABBREVIATIONS

Act .....	Tariff Act of 1930
AD .....	Antidumping
BBs .....	Ball bearings
CGE .....	Computable general equilibrium
China .....	People's Republic of China
CNIF .....	Customs' Net Import File
Commission .....	U.S. International Trade Commission
Commerce .....	U.S. Department of Commerce
CPE .....	Computable partial equilibrium
CPTs .....	Color picture tubes
CRBs .....	Cylindrical roller bearings
CRT .....	Cathode ray tube
CTVs .....	Color television receivers
Customs .....	U.S. Customs Service
CVD .....	Countervailing duty
DRAM .....	Dynamic random access memory
EPROM .....	Erasable programmable read-only memory
EEPROM .....	Electronically erasable programmable read only memory
EU .....	European Union
FCOJ .....	Frozen concentrated orange juice
FCOJM .....	Frozen concentrated orange juice for manufacturing
FCOJR .....	Frozen concentrated orange juice for retail sale
FMV .....	Foreign market value
F.O.B. ....	Free on board
FTC .....	Federal Trade Commission
GATT .....	General Agreement on Tariffs and Trade
GSA .....	General Services Administration
HHI .....	Herfindahl-Hirschman index
HTS .....	Harmonized Tariff Schedule of the United States
IC .....	Integrated circuit
IMF .....	International Monetary Fund
K .....	Kilobit, 1,000 bits
Korea .....	Republic of Korea
LCD .....	Liquid crystal display
LTFV .....	Less than fair value
Meg .....	Megabit, 1,000,000 bits
MFN .....	Most favored nation
OMA .....	Orderly Marketing Agreement
PRW .....	Production and related workers
ROM .....	Read only memory
SIC .....	Standard Industrial Classification
SSE .....	Single strength equivalent
SSOJ .....	Single strength orange juice
TR .....	Transcript of the public hearing
TRBs .....	Tapered roller bearings
TRQ .....	Tariff rate quota
TSUS .....	Tariff Schedules of the United States (former version)

UAN .....	Urea ammonium nitrate
UFTP .....	Unfair trade practice
URAA .....	Uruguay Round Agreements Act
USDA .....	U.S. Department of Agriculture
USP .....	U.S. price
USSR .....	Union of Soviet Socialist Republics (former)
USTR .....	United States Trade Representative
VER .....	Voluntary export restraint
VRA .....	Voluntary restraint arrangement
WTO .....	World Trade Organization



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# TABLE OF CONTENTS

	<i>Page</i>
Preface .....	iii
Glossary of Abbreviations .....	vii
Executive Summary .....	vix
<b>PART I. Introduction and Administration of the Law</b>	
Chapter 1. Introduction .....	1-1
Chapter 2. The administration of antidumping and countervailing duty laws in the United States .....	2-1
<b>PART II. Overview and Economy-wide Effects</b>	
Chapter 3. An overview of existing orders .....	3-1
Chapter 4. The economy-wide effects of outstanding antidumping and countervailing duty orders .....	4-1
<b>PART III. Case Studies: Economic Effects on Selected Sectors</b>	
Chapter 5. The study methodology: The economics of dumping and subsidization of imports and remedies .....	5-1
Chapter 6. The case studies: Selection methodology and major findings .....	6-1
Chapter 7. Frozen concentrated orange juice .....	7-1
Chapter 8. Lamb Meat .....	8-1
Chapter 9. EPROMS .....	9-1
Chapter 10. Color television picture tubes .....	10-1
Chapter 11. Urea .....	11-1
Chapter 12. Brass sheet and strip .....	12-1
Chapter 13. Standard welded steel pipes and tubes .....	13-1
Chapter 14. Bearings .....	14-1
<b>Commissioner Comments .....</b>	<b>I</b>
<b>Appendixes</b>	
A. Request letters .....	A-1
B. Institution of investigation .....	B-1
C. List of submissions and hearing participants .....	C-1
D. Case study technical and statistical data .....	D-1



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# EXECUTIVE SUMMARY<sup>1</sup>

The U.S. Trade Representative requested that the U.S. International Trade Commission (Commission) estimate the economic effects of unfair trade practices as transmitted through unfair imports and of the remedies imposed under U.S. antidumping (AD) and countervailing duty (CVD) laws. The analysis consists of estimating economic effects at an economy-wide level and at the industry level. The industry-specific case studies include (a) comprehensive empirical analyses of conditions in the affected industries; (b) quantitative estimates of the effects for such key industry performance indicators as prices, production, employment, wages, income, and trade; and (c) comparative static analysis of petitioning, upstream and downstream industries/consumers and net welfare effects.

To accomplish this extensive task the Commission has undertaken a multi-part study. The Commission's computable general equilibrium (CGE) model is used to measure economy-wide effects. In addition, a trend analysis of AD/CVD cases filed since 1980 provides insights into the effects enforcement actions have had on different kinds of product markets. One general effect, for example, is trade diversion toward nonsubject imports when orders are imposed. Finally, eight case studies combine thorough industry expertise with rigorous economic and statistical analyses to examine market conditions, industry performance and welfare effects of AD/CVD enforcement. The broad range of data sources employed include industry questionnaires, interviews, public and private data, Commission reports on AD/CVD investigations, and a relatively new U.S. Customs Service database of U.S. imports subject to AD/CVD orders.

## Economy-Wide Analysis

The Commission's CGE model estimates the economy-wide effects of a simultaneous removal of outstanding AD/CVD orders in 1991. These orders affected approximately 1.8 percent of total U.S. merchandise imports or \$9 billion out of \$491 billion in 1991. The Commission CGE model simulates the U.S. economy in 1991, including interactions among U.S. producers and consumers in markets for goods, services, labor, and capital, as well as upstream and downstream linkages. The model is static and cannot take into account the cumulative or dynamic effects of existing orders, which may have been in place for many years.

The removal of outstanding AD/CVD orders in 1991 leads to different estimated economic effects across the U.S. economy. A direct consequence of the simulated order removal is lower prices and resulting gains experienced by consumers and industries downstream to the sectors subject to AD/CVD orders. The estimates obtained from the CGE model indicate that with the removal of outstanding AD/CVD orders the eight sectors highlighted in the CGE analysis experience import price declines of 7 percent or more, with ball and roller bearing import prices falling by nearly 20 percent in 1991. At the same time, the U.S. industrial sectors subject to orders would suffer adverse economic consequences. For example, ball and roller bearings and

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<sup>1</sup> For views of individual Commissioners see "Commissioner Comments" after chapter 14.

electrical industrial apparatus (small business telephone systems), are estimated to experience a 3 to 4 percent decline in output and employment.

The Commission model estimates that the removal of outstanding AD/CVD orders in 1991 results in a welfare gain to the U.S. economy of \$1.59 billion, or 0.03 percent of 1991 U.S. gross domestic product (\$5,724.8 billion) as calculated by using a standard equivalent variation measure. This welfare measure reflects both gains and losses experienced by all sectors in the U.S. economy from removal of the outstanding AD/CVD orders. Thus, the estimated welfare effect of \$1.59 billion represents the amount by which the economy-wide gains outweigh the losses.

The estimation includes 163 AD and 76 CVD orders for a total of 239 AD/CVD investigations. Not included are 170 orders that were revoked, 9 suspended and 37 terminated investigations, and 41 orders in which subject imports stopped completely after their imposition. The impact of the excluded AD/CVD cases, and others that were filed and withdrawn, such as the steel cases in the 1980s (withdrawn pursuant to voluntary restraint arrangements), may be sizable but is not measured. The model thus tends to underestimate the economy-wide effects of AD/CVD cases as it does not capture the effects of the excluded cases mentioned above. At the same time, the model tends to overestimate the economy-wide effects of AD/CVD orders because it assumes that the price the U.S. consumers ultimately pay for subject imports is equal to the pre-duty U.S. price plus the full amount of the original margin.

Petitioning industries and industries upstream from petitioners are estimated to experience losses as the result of removing outstanding AD/CVD orders. For the most adversely affected sectors highlighted in the model, losses of output are estimated to be \$658 million and losses of employment are estimated to be 4,075 full-time equivalent workers. A specific estimate of the component of the net welfare effects of order removal that can be attributed to adversely affected industries is precluded because of intractable empirical issues with regard to petitioner-specific industries and the limits of currently available models with regard to comparisons of the distribution of income and consumption among different groups.

As a rough proxy for the direct decomposition of the net welfare effects, the value-added measure generated by the Commission model of \$1.85 billion can be used as the basis to approximate the relative effects of the removal of AD/CVD orders on gainers and losers. The economy-wide losses in income to workers and firm owners in the petitioning and upstream industries as a result of removing outstanding AD/CVD orders fall within the range of \$320 million to \$1.09 billion for 1991. The corresponding implied gains to the rest of the economy range from \$2.17 billion to \$2.94 billion.

## Historic Caseload

Examining the trends for the overall caseload for which an injury determination was required from 1980 to 1993, the data indicate that 33 percent of all AD/CVD investigations had affirmative determinations, 45 percent had negative, and the remaining 22 percent were terminated or suspended. Of the 1040 AD/CVD cases filed in this period, 44 percent involved steel products. Evidence of trade diversion is observed as trade shifts from imports originating in subject countries to imports from nonsubject sources. In particular, imports subject to AD orders fell by 32 percent while nonsubject imports rose by 24 percent during the 1990-92 period.

## Case-Study Effects

To address the request of the U.S. Trade Representative, eight case studies were conducted, representing the caseload of agricultural, high-technology and commodity industries; final and intermediate products; and new and mature industries. These case studies included: frozen concentrated orange juice (FCOJ), lamb meat, erasable programmable read only memories (EPROMs), color television picture tubes (CPTs), solid urea, brass sheet and strip, standard welded carbon steel pipes and tubes, and certain bearings. A detailed trend analysis of each industry examines the dynamic forces at work in the marketplace. Time series and comparative static analyses estimate the effects of AD/CVD enforcement over time and for a given year, respectively.

### *Analysis Over Time*

To estimate the combined impact of the petition filing and remedy over time, it is necessary to account for the influence of market demand and supply variables so that the estimated effects of the petition filing and remedy can be isolated from the market forces affecting a given industry. These market variables include input costs, exchange rates, downstream demand growth, and changes in technology. The econometric analyses partition the time series data into pre-petition, investigation, and post-final determination periods to estimate the effects of the petitions and remedial duties given the key demand and supply variables. The impact of filing petitions could not be estimated separately from the impact of the remedy in all the cases because detailed data were not available to distinguish these two closely occurring events. The impact of dumping could not be estimated because the date when the dumping started could not be determined with any precision.

The time-series analyses find that AD/CVD petition filing and remedy generally had an impact on prices and quantities of domestic output and subject imports, though other factors were also influential in determining the behavior of these variables. For example, urea prices and domestic shipments rose by 19 and 48 percent, respectively, following the imposition of the order. Subject urea imports stopped completely, while nonsubject imports from Canada increased by about 38 percent. In the case of tapered roller bearings cone assemblies, subject imports fell by an estimated 30 percent while nonsubject imports doubled as a result of the investigation process. The time-series estimates for tapered roller bearings and ball bearing products however, were inconclusive. The effects of the remedies were likely outweighed by the aggressive direct investment in the United States by bearing producers from subject countries during the pre-petition period. This investment, beginning before the petition, helped limit post-determination imports, and also resulted in declining prices.

In the case of CPTs, the trend analysis indicates that subject imports dropped by 68 percent the year of the petition filing. Subject countries dropped from 100 percent of imports in 1986 to 30 percent in 1993. Despite this drop, rapid foreign investment in the United States and aggressive competition within the CPT industry considerably reduced the effect of the AD filing and order. Both the time-series analysis and interviews with the U.S. CPT producers indicate that the investigation process did not have a significant impact on the industry.

The time series results indicate that imports of frozen concentrated orange juice from Brazil were 75 percent lower in the years after the remedy and that consumption of domestic FCOJ increased. This substantial decline in Brazilian imports despite the low dumping margin is most likely due to the changes in Brazilian exporter behavior. According to the U.S. industry and FCOJ purchasers, the AD order spurred Brazil to seek non-U.S. markets as well as to establish a pricing formula tied to the U.S. spot market to avoid further U.S. antidumping actions.

In the case of lamb, the CVD process led to trade diversion where imports of lamb from nonsubject Australia largely replaced imports from subject New Zealand. Domestic prices nevertheless rose by 10 percent. The relatively small impact of the CVD process on the U.S. domestic lamb meat market was also due to the very small market share held by imports.

Prices did not always rise in response to remedies as other market factors overpowered the trade remedy. For example, aggressive competition among domestic producers of brass sheet and strip kept prices down while the foreign competition from subject imports spurred improved U.S. product quality. Domestic shipments of brass sheet and strip were an estimated 34 percent by the end of 1991 than they would have been in the absence of trade remedies; subject imports were 73 percent lower.

In the case of the pipes and tubes industry, domestic prices increased by 10 percent after the AD order went into effect, while domestic shipments also increased. Lacking the necessary data to estimate the effects of the title VII process on EPROMS, an estimate using a hedonic price index (i.e., quality adjusted price) found that the long-term decline in prices slowed after the investigation process. Also, while EPROMS remained an almost constant portion of total integrated circuits (IC) unit shipments, EPROM revenues increased as a share of total IC revenue during 1987-89, indicating that the EPROM investigation may have affected the industry.

The case studies also suggest that AD/CVD relief affects upstream firms and downstream consumers in different ways and amounts. When the subject product is only a small component of downstream firms' demand or consumers' input, demand is relatively less sensitive to price and not diminished by higher prices, such as the case of ball bearings or brass sheet and strip. When downstream industries are competitive, such as farmers purchasing urea, increased prices may not be fully passed through to consumers.

## ***Comparative-Static Analysis***

In contrast to time series and trend analysis, simulation models built on standard partial equilibrium analysis provide comparative static, or "snapshot" estimates that isolate the effect of AD/CVD relief on the prices and quantities of domestic product, fairly traded imports, and unfairly traded imports from the impact of other factors, such as business cycles. The model also estimates the total net welfare effects on the upstream and downstream industries. These effects reflect the gains (losses) realized by consumers (producers) due to unfair trade practices and the reverse effects associated with the remedies.

Table A (placed at the end of this executive summary) presents the effect on price, output, revenue, and employment for the domestic like product relative to the "fair values," estimated to have been in place without the unfair trade practice (column 1) and the effects on these variables with the remedy in place (column 2). Column 3 indicates the extent to which the remedy offsets the unfair trade practice for each one of these key industry variables for each case study. Similarly, the effects on the price and output for subject imports as estimated by the model are also presented in Table A. Revenue and employment effects tend to be larger for those industries with a relatively high import market share and a high dumping margin.

The remedies offset the unfair trade practice for lamb meat, EPROMs, and urea, and almost offset the effect of the unfair trade practice for pipes and tubes (column 3 in table A). However, the remedies did not completely offset the effect of the unfair trade practice in the case of frozen concentrated orange juice, color picture tubes, brass sheet and strip, and bearings. This incomplete offset is a terms of trade effect that arises when import supply is not assumed to be

completely responsive to changes in prices. A U.S. duty reduces demand for subject imports, which in turn increases supply and reduces prices in non-U.S. markets. The fair market price estimated by the Department of Commerce in administrative reviews will therefore be lower and dumping will be reduced or remedied without raising U.S. subject import prices by the full amount of the dumping margin.

The effects of both the unfair trade practice and the remedy are greater on output than on prices in each case but color picture tubes (figure A, at the end of this executive summary). In the former cases, domestic producers were not facing capacity constraints and were therefore able to increase supply without increasing price substantially. In the case of color picture tubes, however, U.S. producers had been operating near capacity since 1984. Hence for the color picture tubes, the effect of the unfair trade practice and remedy is greater on prices than output.

Net welfare effects measure the difference between consumer and producer welfare changes. As shown in column 1 of table A and in figure B, the largest consumer and net welfare effects of the unfair trade practices in the case studies were found in the ball bearing and tapered roller bearing investigations. For ball bearings, the consumer and net welfare effects were \$212 million and \$106 million, respectively, while for tapered roller bearings, they were \$66 million and \$31 million, respectively. Both had very large U.S. markets (\$2.0 billion in 1985 sales of ball bearings and \$904 million in 1987 sales of tapered roller bearings) and large dumping margins. Comparing columns 1 and 2 in table A for certain bearings estimates, model results also suggest that 64 (\$68.1 million/\$105.6 million) and 39 (\$13.6 million/\$34.8 million) percent, respectively, of the welfare loss to U.S. bearings producers were remedied in the two case studies.

FCOJ and brass sheet and strip also had fairly large net welfare effects due to the unfair trade practices. For FCOJ, despite a 1.96 percent weighted average dumping margin, a net welfare loss occurs because of the very large U.S. market and high subject import market share of 49 percent. Additionally, 52 percent (\$2.7 million/\$5.2 million) of the U.S. producer welfare loss was estimated to be remedied by the AD order. The relatively large welfare effects due to unfair trade practices for the brass sheet and strip industry were due to a relatively high subject import market share of 24 percent and a 21 percent weighted average margin of dumping. AD orders remedied 86 percent (\$4.4 million/\$5.1 million) of the U.S. producer welfare loss for the brass and strip industry.

Solid urea, color picture tubes, and EPROMS all experienced moderate net welfare losses (\$8.4 million, \$8.1 million, and \$5.7 million, respectively, in column 1 of table A) due to unfair trade practices. All three faced subject import penetration above 10 percent; solid urea and EPROMs obtained large dumping margins. Despite a large U.S. color picture tube market (\$1.1 billion in 1986), relatively low weighted average margins kept the net welfare effects moderate. According to model estimates, there would have been no subject imports of urea and EPROMS but for the dumping and all the producer welfare losses were remedied in both industries. In the case of the CPT industry, 54 percent of the welfare losses to U.S. producers was estimated to be remedied.

Pipe and tubes and lamb had the lowest net welfare effects (\$3.8 million and \$2.0 million) associated with unfair trade practices. Both had weighted average margins over 20 percent, but small subject import market shares (4 and 5 percent, respectively). For the pipes and tubes industry, 89 percent (\$8 million/\$9 million) of the welfare loss due to dumping was remedied. In the case of lamb, the loss from subsidies was fully remedied by the countervailing duty.

**Table A**  
**Comparative static effects of unfair trade practices and remedies for selected U.S. industries<sup>1</sup>**

Product group and case types	Effects	Unfair trade practice	Remedy	Unfair trade practice and remedy
		————— Change from fair value <sup>3</sup> —————		
Frozen concentrated orange juice (AD/CVD <sup>2</sup> cases)	(Base year: 1984/85)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-0.5	0.2	-0.3
	Output .....	-.6	.4	-.2
	Revenue .....	-1.2	.7	-.5
	Employment .....	-.5	.3	-.2
	Subject imports:			
	Price .....	-1.5	.9	-.6
	Volume .....	2.1	-1.2	.9
	Revenue .....	.6	-.4	.2
	WELFARE EFFECTS (million dollars):			
Consumers .....	19.0	-10.7	8.3	
Producers .....	-5.2	2.7	-2.5	
Net welfare effect .....	13.8	-8.0	5.8	
Lamb meat (CVD cases)	(Base year: 1985)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-0.2	0.2	0
	Output .....	-.4	.4	0
	Revenue .....	-.6	.6	0
	Employment .....	-.4	.4	0
	Subject imports:			
	Price .....	-9.0	9.0	0
	Volume .....	25.5	-25.5	0
	Revenue .....	14.1	14.1	0
	WELFARE EFFECTS (million dollars):			
Consumers .....	3.0	-3.0	0	
Producers .....	-1.0	1.0	0	
Net welfare effect .....	2.0	-2.0	0	
EPROMS (AD case <sup>2</sup> )	(Base year: 1985)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-3.8	3.8	0
	Output .....	-11.0	11.0	0
	Revenue .....	-14.4	14.4	0
	Employment .....	-8.0	8.0	0
	Subject imports:			
	Price .....	(4)	(4)	0
	Volume .....	(4)	(4)	0
	Revenue .....	(4)	(4)	0
	WELFARE EFFECTS (million dollars):			
Consumers .....	16.7	-16.7	0	
Producers .....	-11.0	11.0	0	
Net welfare effect .....	5.7	-5.7	0	

See footnotes at end of table.



Table A—Continued

Comparative static effects of unfair trade practices and remedies for selected U.S. industries<sup>1</sup>

Product group and case types	Effects	Unfair trade practice	Remedy	Unfair trade practice and remedy
		———— Change from fair value <sup>3</sup> ————		
Color picture tubes (AD cases)	(Base year: 1986)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-2.8	1.4	-1.4
	Output .....	-1.2	1.2	0
	Revenue .....	-4.0	2.6	-1.4
	Employment .....	-1.0	1.0	0
	Subject imports:			
	Price .....	-6.0	3.8	-2.2
	Volume .....	26.9	-19.9	7.0
	Revenue .....	19.2	-14.6	4.6
	WELFARE EFFECTS (million dollars):			
Consumers .....	37.1	-20.8	16.3	
Producers .....	-29.1	15.6	-13.5	
Net welfare effect .....	8.1	-5.3	2.8	
Solid urea (AD cases)	(Base year: 1985)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-2.5	2.5	0
	Output .....	-7.3	7.3	0
	Revenue .....	-9.6	9.6	0
	Employment .....	-5.1	5.1	0
	Subject imports:			
	Price .....	(4)	(4)	0
	Volume .....	(4)	(4)	0
	Revenue .....	(4)	(4)	0
	WELFARE EFFECTS (million dollars):			
Consumers .....	20.0	-20.0	0	
Producers .....	-11.7	11.7	0	
Net welfare effect .....	8.3	-8.3	0	
Brass sheet and strip (AD/CVD cases)	(Base year: 1985)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-1.3	1.1	-0.2
	Output .....	-9.6	8.4	-1.2
	Revenue .....	-10.8	9.5	-1.3
	Employment .....	-9.4	8.2	-1.2
	Subject imports:			
	Price .....	-16.3	14.2	-2.1
	Volume .....	47.5	-42.8	4.7
	Revenue .....	23.8	-21.3	2.5
	WELFARE EFFECTS (million dollars):			
Consumers .....	26.2	-22.9	3.3	
Producers .....	-5.1	4.4	-7	
Net welfare effect .....	21.1	-18.5	2.6	

See footnotes at end of table.

Table A—Continued

Comparative static effects of unfair trade practices and remedies for selected U.S. industries<sup>1</sup>

Product group and case types	Effects	Unfair trade practice	Remedy	Unfair trade practice and remedy
		Change from fair value <sup>3</sup>		
Standard welded carbon steel pipes and tubes (AD/CVD <sup>2</sup> cases)	(Base year: 1986)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-0.2	0.2	0
	Output .....	-1.6	1.5	-1
	Revenue .....	-1.9	1.7	-2
	Employment .....	-1.6	1.5	-1
	Subject imports:			
	Price .....	-13.6	12.5	-1.1
	Volume .....	70.5	-64.3	6.2
	Revenue .....	48.7	-44.4	4.3
	WELFARE EFFECTS (million dollars):			
	Consumers .....	4.7	-4.3	.4
Producers .....	-9	.8	-.1	
Net welfare effect .....	3.8	-3.5	.3	
Certain bearings	(Base year: 1985)			
A) Tapered roller bearings (AD cases)	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-4.8	1.8	-3.0
	Output .....	-8.4	3.6	-4.8
	Revenue .....	-12.8	5.2	-7.6
	Employment .....	-6.7	3.0	-3.7
	Subject imports:			
	Price .....	-23.6	9.5	-14.1
	Volume .....	104.5	-56.9	47.6
	Revenue .....	56.1	-30.0	26.1
	WELFARE EFFECTS (million dollars):			
	Consumers .....	65.7	-28.6	37.1
	Producers .....	-34.8	13.6	-21.2
Net welfare effect .....	30.9	-15.0	15.9	
B) Ball bearings (AD/CVD cases)	(Base year: 1987)			
	MARKET EFFECTS (percent):			
	Domestic:			
	Price .....	-6.8	4.3	-2.5
	Output .....	-12.7	8.0	-4.7
	Revenue .....	-19.1	11.3	-7.8
	Employment .....	-11.7	7.4	-4.3
	Subject imports:			
	Price .....	-27.3	11.6	-15.7
	Volume .....	221.9	-174.8	47.1
	Revenue .....	134.9	-110.2	24.7
	WELFARE EFFECTS (million dollars):			
	Consumers .....	211.9	-137.6	74.3
Producers .....	-105.6	68.1	-37.5	
Net welfare effect .....	106.3	-69.5	36.8	

<sup>1</sup> The estimated effects reported are the results of the Commission's CPE model using the midpoint values of parameter ranges

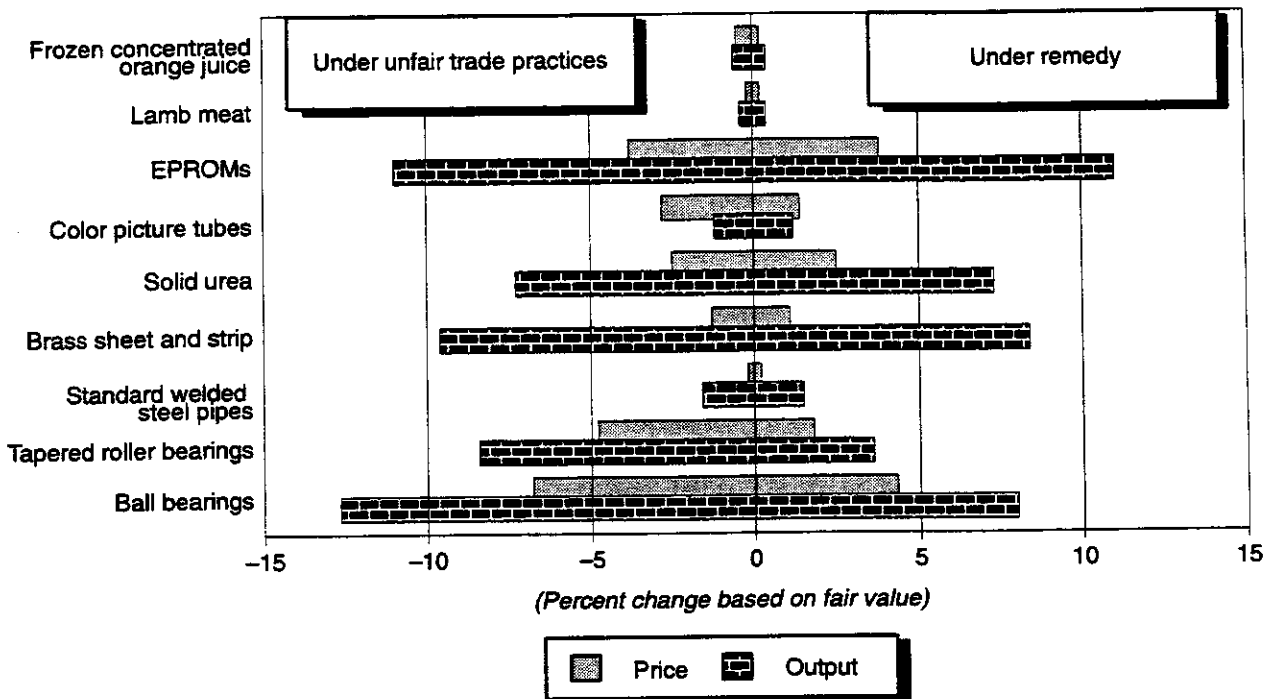
<sup>2</sup> Suspended; one pipe CVD case suspended

<sup>3</sup> The "fair values" are the values estimated by the model to have been in place without the effect of the unfair trade practice

<sup>4</sup> The margins determined by Commerce are so large that the model calculates that there would be no imports from the subject country but for the unfair trade practice.

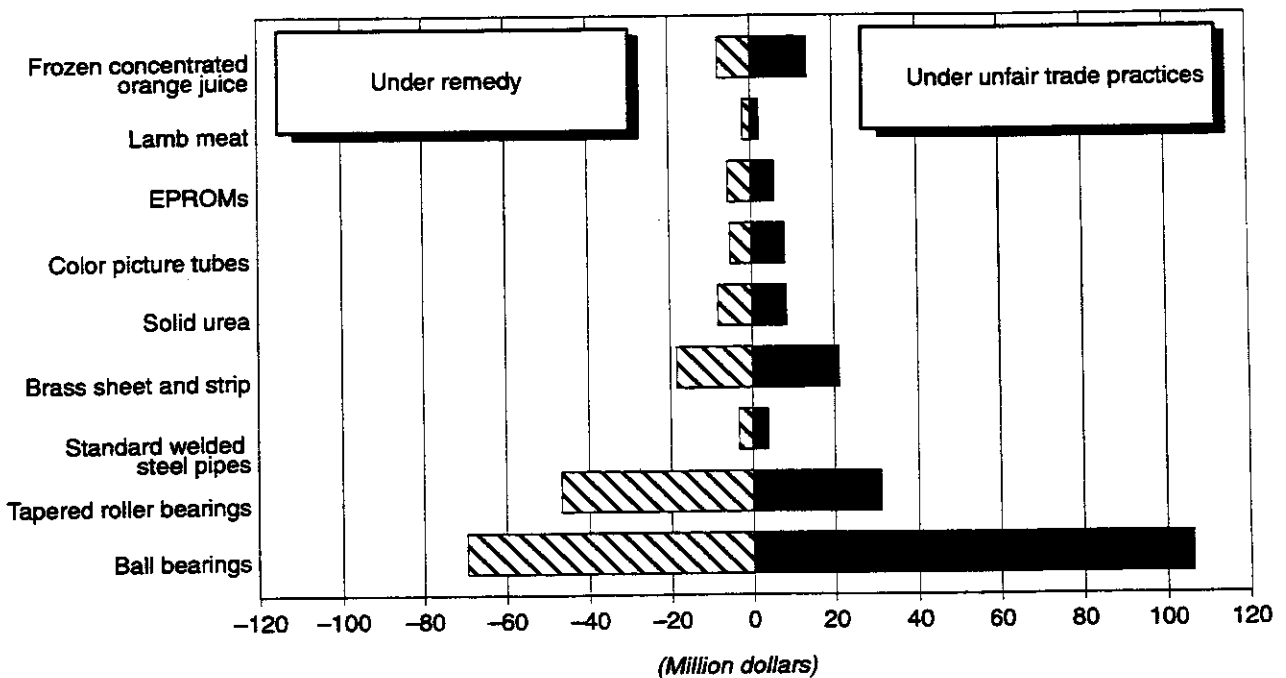
Source: Estimated by the staff of the U.S. International Trade Commission.

**Figure A**  
**Comparative static effects of unfair trade practices and remedies on U.S. price and output for a given year**



Source: Estimated by the staff of the U.S. International Trade Commission.

**Figure B**  
**Net welfare comparative static effects of unfair trade practices and remedies for a given year**



Source: Estimated by the staff of the U.S. International Trade Commission.



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**PART I**  
**Introduction and**  
**Administration of the Law**



# CONTENTS

	<i>Page</i>
<b>PART I. Introduction and Administration of the Law</b>	
Chapter 1. Introduction .....	1-1
Purpose .....	1-1
Approach .....	1-1
Organization of the report .....	1-2
Chapter 2. The administration of antidumping and countervailing duty laws in the United States .....	2-1
U.S. law .....	2-1
Antidumping law .....	2-1
Countervailing duty law .....	2-2
U.S. antidumping and countervailing duty procedures .....	2-3
The petition .....	2-3
Review of the petition and initiation of an investigation .....	2-5
Preliminary investigation by the Commission .....	2-5
Preliminary investigation by Commerce .....	2-8
Suspension of liquidation .....	2-10
Suspension agreements .....	2-10
Final investigation by Commerce .....	2-11
Final investigation by the Commission .....	2-12
The antidumping or countervailing duty order .....	2-13
Assessment of antidumping or countervailing duties .....	2-13
Review and revocation of orders and suspended investigations .....	2-14
Appeal procedures .....	2-14
Judicial review .....	2-14
Binational panel review .....	2-15
WTO dispute settlement process .....	2-15





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# CHAPTER 1

## Introduction

### Purpose

The U.S. Trade Representative requested that the Commission "investigate the economic effects of existing antidumping and countervailing duty orders and/or suspension agreements, and economic effects of the dumping and subsidy practices as transmitted through unfair imports to the United States." Further, the U. S. Trade Representative requested that the Commission's response consist of three parts.

First, the Commission was requested to "include a comprehensive empirical analysis of conditions in the U.S. domestic industries impacted by unfairly traded imports both for a proximate period prior to the provision of relief and for a period sufficiently later than the date relief was accorded for the condition of the industry to fully reflect the effects of the relief." Specifically, the U.S. Trade Representative has asked the Commission to provide quantitative estimates of the effects of the investigations brought under title VII of the Tariff Act of 1930 (title VII investigation) on selected U.S. industries for such key industry performance indicators as employment, wages, income, production, prices, and trade.

Second, the Commission was directed to employ a standard comparative static framework to investigate the economic effects of unfair trade practices and remedies on selected U.S. industries. The U.S. Trade Representative asked that the comparative static assessment of dumping, subsidy practices, and remedies be complemented with quantitative estimates of the effects on labor and other domestic adjustment costs. These effects are to be measured for the petitioning industries as well as the upstream and downstream industries.

Third, in addition to estimating the above-mentioned market effects for each industry being investigated, the U.S. Trade Representative has asked the Commission to assess the economy-wide welfare effects of the unfair trade practices and the remedy provided.

### Approach

The Commission has taken a multi-part approach to the complex task set forth by the U.S. Trade Representative. Estimating the economic effects of unfair trade practices and remedies on the petitioning and upstream and downstream industries, measured across the numerous specific variables enumerated in the request, requires choosing a manageable sample of case studies to represent the more than 1,000 cases filed since enactment of the Trade Agreements Act of 1979. Eight cases were selected, representing the breadth of industries covered—agricultural, high-technology, basic commodities, rapidly changing and mature industries—and the types of trade remedies achieved—antidumping, countervailing duty and suspension agreements. All the cases fall between 1983-89. The case selection methodology is presented in chapter 6. The cases selected are frozen concentrated orange juice (FCOJ), lamb, erasable programmable read only memories (EPROMS), color picture tubes (CPTs), urea, brass sheet and strip, standard welded carbon steel pipes and tubes, and certain bearings.

Three basic approaches are taken in the case studies. First, trends are analyzed for the key industry indicators, such as prices and output of the domestic like product, prices and level of imports, cost of production, market share, investment, employment, profitability, and research and development expenditures of the domestic producers.

Second, using this information, time-series analysis is used to estimate the supply and demand parameters underlying the industry's historical performance. Estimating these parameters, in turn, permits measurement of the economic effects of the unfair trade practices and the remedy on prices and quantities of the domestic like product, and imports of the product from countries subject to the duties and those from countries not subject to the duties.

Third, for a comparative static estimation of the effect of unfair trade practices and remedy, a computable partial equilibrium (CPE) model was developed and applied to each selected industry. In

contrast to time series analysis where effects are measured over time, this CPE model estimates the market effects (i.e., effects on prices and quantities) and the net welfare effects of both the dumping and relief on the affected U.S. industries for a given base year. The CPE methodology isolates the effect of the unfair trade practice and remedy on the prices and quantities of domestic product, fairly traded imports, and unfairly traded imports from the impact of other factors, such as business cycles. The CPE model also provides comparative static quantification of the effects on the upstream and downstream industries. These effects reflect the gains and losses realized by consumers and producers due to unfair trade practices and the reverse effects associated with the remedy. The economic effects of unfair trade practices and remedies on wages, investment, and other competitive factors were assessed using data gathered from questionnaires, fieldwork and the literature.<sup>1</sup>

To examine the broader, economy-wide effects of the AD/CVD orders on the U.S. economy, the Commission's computable general equilibrium (CGE) model is used. The Commission CGE model simulates the interactions among producers and consumers within the U.S. economy in markets for goods, services, labor, and physical capital. The Commission model explicitly accounts for upstream and downstream production linkages, and intersectoral competition for labor and capital. In one simulation exercise, the Commission CGE model estimates the effects of existing AD/CVD orders by postulating that all the orders in place in 1991 are simultaneously removed. In addition, the modeling exercise takes into account the fact that AD/CVD orders can change from their initial levels through the administrative review process. For example, after an AD order is

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<sup>1</sup> Data needed for conducting the econometric analysis as well as the CPE analysis were gathered from public sources, fieldwork, questionnaires, and submissions at the public hearing held at the Commission on the 29th and 30th September 1994. The period of time covered by the analysis in the cases spanned years from 1974 to 1994. Chapters 7 to 14 in Part III of the study provide information on specific data sources used for each case study.

put in place, it is possible that a foreign firm could raise its U.S. price by the full amount of the margin or leave the U.S. price unchanged, or some combination of both to reduce or eliminate the AD margin and lower or avoid AD duties. By changing their U.S. price, foreign firms can capture some of the revenue that would have gone to the U.S. Treasury. A CVD margin is modeled as an ad valorem tariff as collected by the U.S. Customs Service in 1991. The model will tend to underestimate the economy-wide effects of AD/CVD cases as it does not capture the effects of the cases that were revoked, terminated or suspended or in which imports ceased completely or where petitions filed were withdrawn before 1991. At the same time, the model will tend to overestimate the economy-wide effects of AD/CVD cases as it assumes that the price the U.S. consumers pay is equal to the pre-duty U.S. price plus the full amount of the original margin.

## Organization of the Report

This report is divided into three parts. Part I contains chapters 1 and 2. The latter chapter presents information on the administration of the current and past U.S. AD/CVD duty laws. Part II contains chapters 3 and 4 and presents material related to economy-wide effects due to unfair trade practices and AD/CVD orders. Chapter 3 presents an overview of existing orders and suspension agreements over the 1980-1993 period while Chapter 4 provides the economy-wide effects of remedies using the Commission CGE model for the year 1991.

Part III contains chapters 5 to 14 which present the analysis on selected U.S. industries. Chapter 5 reviews the theoretical and empirical literature on the economics of dumping and subsidization of imports. This chapter also describes the Commission methodology developed to respond to the U.S. Trade Representative's request. Chapter 6 provides the case selection methodology and the summary of economic effects for the 8 cases selected for the analysis. Chapters 7 through 14 provide case studies of eight industries that have been the subject of unfair trade investigations and remedies.

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## CHAPTER 2

# The Administration of Antidumping and Countervailing Duty Laws in the United States

This chapter provides a brief history of U.S. antidumping and countervailing duty laws and describes the current roles and procedures of U.S. agencies in the administration of the U.S. antidumping and countervailing duty laws set forth in the Tariff Act of 1930.<sup>1</sup> In addition, the chapter describes the various appeals processes in connection with antidumping and countervailing duty determinations. The case study investigations discussed in this report were initiated between 1982 and 1989 and were governed by the antidumping and countervailing duty laws as they existed at the time the investigations were conducted. However, the antidumping and countervailing duty laws were amended several times during the 1980s<sup>2</sup> and were amended again in late 1994 (effective January 1, 1995) by the Uruguay Round Agreements Act (URAA).<sup>3</sup> Thus, the law as it exists today and as it existed at the time of the various investigations is not identical. Descriptions of changes in key provisions are noted in footnotes to the text below.

<sup>1</sup> Tariff Act of 1930, ch. 497, 46 Stat. 703, and 19 U.S.C. 1671 et seq.

<sup>2</sup> The current U.S. antidumping and countervailing duty laws are set forth, for the most part, in title VII of the Tariff Act of 1930. As is explained in the textual portion of this chapter, these laws were enacted in this form by the Trade Agreements Act of 1979 (1979 Act), Public Law 96-39, Title I, 101, 93 Stat. 150, which added title VII to the Tariff Act of 1930. The provisions in title VII became effective January 1, 1980. Since that time, title VII has been further amended by the Trade and Tariff Act of 1984 (1984 Act), Public Law 98-573, Title VI, 601, 98 Stat. 3024-3043, by the Omnibus Trade and Competitiveness Act of 1988 (1988 Act), Public Law 100-418, Title I, 1311, 102 Stat. 1184-1211, and by the Customs and Trade Act of 1990 (1990 Act), Public Law 101-382, Title II, 224(a), 104 Stat. 659.

<sup>3</sup> Public Law 103-465, Title II, 108 Stat. 4809.

## U.S. Law

### *Antidumping Law*

The Antidumping Act, 1921 (1921 Act),<sup>4</sup> which was part of the Emergency Tariff Act of 1921, was the predecessor to current title VII of the Tariff Act of 1930. It was patterned after a then-existing Canadian antidumping provision, which required the customs inspectors to inspect every transaction for evidence of dumping. Congress included an injury test in the original 1921 law to reduce the burden on the Treasury Department in administering the provision and delegated the task of making both the dumping and injury determinations<sup>5</sup> to the Department of the Treasury. The administration of the antidumping law was split in 1954, with the function of determining injury transferred from the Treasury Department to the U.S. Tariff Commission (now the U.S. International Trade Commission).<sup>6</sup>

<sup>4</sup> Act of May 27, 1921, ch. 14, 42 Stat. 11. There is another U.S. antidumping law, commonly referred to as the Antidumping Act of 1916, which is a criminal and civil statute. Act of September 8, 1916, ch. 463, Title VIII, 39 Stat. 798. The 1916 law, which requires a showing of intent to injure, has rarely been used and has never been successfully invoked.

<sup>5</sup> Generally, an antidumping determination assesses whether subject imports are being dumped and, if so, provides the relevant margin of dumping. An injury determination assesses whether a domestic industry is materially injured, threatened with material injury, or materially retarded by reason of the dumped imports. See discussion *infra* for a more comprehensive explanation of these terms and procedures.

<sup>6</sup> Customs Simplification Act of 1954, Public Law 83-768, ch. 1213, Title III, 68 Stat. 1138.

The 1921 Act was the model for a draft article on dumping that was proposed by the United States during negotiations to establish an International Trade Organization (ITO) and resulted in Article VI of the General Agreement on Tariffs and Trade of 1947 (GATT).<sup>7</sup> The GATT Antidumping Agreement of 1967 was negotiated to clarify and supplement the broad concepts of Article VI of the GATT during the Kennedy Round of multilateral trade negotiations.<sup>8</sup> During the Tokyo Round of trade negotiations completed in 1979, a new GATT Antidumping Agreement was drafted to supersede the 1967 GATT Antidumping Agreement and to conform to Article VI of the GATT and the newly negotiated Agreement Relating to Subsidies and Countervailing Measures (GATT Subsidies Agreement).

The 1979 GATT Antidumping Agreement was implemented into U.S. law by the Trade Agreements Act of 1979. The 1979 Act repealed the 1921 Act and added a new title VII to the Tariff Act of 1930, implementing the provisions of the GATT agreement in a new U.S. antidumping law. The statute substantially changed a number of substantive and procedural aspects of U.S. antidumping law. In 1980, the responsibility for making dumping determinations was transferred from Treasury to the Department of Commerce.<sup>9</sup> Subsequently, amendments to the U.S. antidumping law were made by the 1984 Act, the 1988 Act, and the 1990 Act.<sup>10</sup> The U.S. antidumping

<sup>7</sup> Article VI of the GATT sets out the international framework governing national antidumping laws.

<sup>8</sup> The 1967 Agreement entered into force with respect to the United States on July 1, 1968. However, this Agreement was never implemented into U.S. law. In fact, Congress passed legislation stating that U.S. law was to override this 1967 Agreement in all areas of conflict. Renegotiation Amendments Act of 1968, Public Law 90-634, Title II, 82 Stat. 1347; Conference Rept. 1951, 90th Cong., 2nd sess., p. 1 (1968).

<sup>9</sup> Reorganization Plan No. 3 of 1979, 44 F.R. 69273 (Dec. 3, 1979); and Executive Order No. 12188, Jan. 4, 1980, 45 F.R. 989.

<sup>10</sup> The 1984 Act added provisions that require Commerce to establish a monitoring program for cases involving persistent dumping and that require the Commission to cumulate imports from two or more countries. In the 1988 Act, provisions were added to the U.S. law to prevent circumvention of antidumping orders, to consider the treatment of negligible imports in determining whether to cumulate for present material injury, to address concerns about foreign dumping in third country markets, and to address short life cycle merchandise. The 1990 Act added the exception to cumulation for material injury, or the threat thereof, for designated Caribbean Basin Initiative countries.

law was amended further in December 1994 (with an effective date of January 1, 1995) to implement changes required by the Uruguay Round Agreements to the Antidumping Agreement.<sup>11</sup>

## *Countervailing Duty Law*

The first U.S. statute dealing with unfair trade practices was a countervailing duty law passed as part of the Tariff Act of 1897 (the Dingley Act), which was subsequently renumbered as section 303 of the Tariff Act of 1930<sup>12</sup> and remained substantially the same until 1979.<sup>13</sup>

The Trade Agreements Act of 1979 added a second countervailing duty provision to U.S. law to conform with the GATT Subsidies Agreement, established during the Tokyo Round of multilateral trade negotiations. The second law, like the current antidumping law, is found in title VII of the Tariff Act of 1930. It requires an injury test in all countervailing duty cases involving imports from so-called "countries under the agreement"—that is, countries that are signatories to the Subsidies Agreement or that have

<sup>11</sup> The Uruguay Round Agreements (URA) established the World Trade Organization (WTO). The URA incorporates previous GATT agreements, as amended, and includes such implementing agreements as the Agreement on Implementation of Article VI of GATT 1994 (Antidumping Agreement 1994) and the Agreement on Subsidies and Countervailing Measures (Subsidies Agreement 1994). Under URA, all countries that become members of the WTO automatically will be subject to the implementing agreements, such as the Antidumping and Subsidies Agreements 1994. Previously, under GATT, members separately decided whether to accept the obligations of the implementing agreements or codes. The Antidumping and Subsidies Agreements 1994 were implemented into U.S. law by the Uruguay Round Agreements Act (URAA).

<sup>12</sup> Section 303 of the Tariff Act of 1930 provided for the imposition of countervailing duties whenever a subsidy was bestowed by a foreign country upon the manufacture or production for export of an article which was subsequently imported into the United States. Section 303, originally, applied only to dutiable goods and did not include an injury test.

<sup>13</sup> The Trade Act of 1974 amended the statute to extend the application of the countervailing duty law to duty-free imports, subject to a finding of injury for GATT signatories as required by Article VI of the GATT. The provisions of the statute regarding dutiable imports, however, were not amended by the 1974 Act. Dutiable imports still were not subject to an injury test since they were governed by section 303 of the Tariff Act, which was grandfathered under the GATT and did not include an injury test for such imports.

undertaken similar obligations.<sup>14</sup> Section 303 of the Tariff Act of 1930 continued to apply to all other countries until January 1, 1995. The authority to make subsidy determinations was transferred from Treasury to Commerce at the same time that the authority was transferred for making dumping determinations. U.S. countervailing duty law also was amended by the 1984 Act (which modified the application of countervailing duty law to upstream subsidies), and the 1988 Act (which explicitly granted authority to prevent circumvention of countervailing duty orders). U.S. countervailing duty law was amended in December 1994 by the URAA to implement changes required by the Uruguay Round Agreement on Subsidies and Countervailing Measures. The URAA repealed section 303 of the Tariff Act of 1930.<sup>15</sup>

## U.S. Antidumping and Countervailing Duty Procedures<sup>16</sup>

### *The Petition*

An antidumping or countervailing duty petition may be filed with Commerce and the Commission by

<sup>14</sup> When the 1979 Act was implemented, there were seven countries (Venezuela, Honduras, Nepal, North Yemen, El Salvador, Paraguay, and Liberia) with such bilateral agreements with the United States. S. Rept. No. 249, 96th Cong., 1st sess., 45 (1979). In 1994, there were six countries (Estonia, Latvia, Liberia, Lithuania, Saudi Arabia, and Yemen) with such bilateral agreements; all, except Liberia and Yemen, have applied for accession to the WTO, which is pending. Statement of Administrative Action on the Uruguay Round (SAA), H. Doc. 103-316, vol. 1 (1994), p. 254.

<sup>15</sup> Under the URA, all countries that become members of the WTO automatically will be subject to the Subsidies Agreement, rather than under the previous system where GATT countries separately decided whether to accede to the obligations of each Agreement.

<sup>16</sup> Before the URAA, the antidumping and countervailing duty laws discussed in this chapter were governed by the title VII provisions enacted by the 1979 Act, as amended by the 1984 and 1988 Acts. The antidumping and countervailing duty provisions in title VII of the Tariff Act, as amended by the URAA, are discussed in the text; previous law is described in the footnotes, as appropriate.

These procedures generally apply to all case study investigations as discussed in chapters 7 to 14 of this report.

### WHAT IS DUMPING?

**Dumping, or selling at less than fair value, is defined as selling a product in the United States at a price which is lower than the price for which it is sold in the home market (the "normal value," formerly termed foreign market value), after adjustments for differences in the merchandise, quantities purchased, and circumstances of sale. In the absence of sufficient home market sales, dumping may be measured by comparing the export price, or constructed export price, to the United States of the subject merchandise with the price for which the product is sold in a surrogate "third country," or with a "constructed value."<sup>17</sup>**

certain interested parties,<sup>18</sup> on behalf of an industry,<sup>19</sup> alleging that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry is materially retarded, by reason of imports that are being, or are likely to be, sold in the United States at less than fair value (LTFV) or by reason of imports that are being subsidized.

A petition must contain information reasonably available to the petitioner supporting its allegations of dumping or countervailable subsidy and injury to a domestic industry by reason of LTFV or subsidized

<sup>17</sup> See SAA, p. 150.

<sup>18</sup> 19 U.S.C. 1671a(b)(1) or 1673a(b)(1).

<sup>19</sup> To conform to the URA, the statute has been changed to require Commerce, which, as the administering authority, has jurisdiction over this issue, to poll the industry "[i]f the petition does not establish support of domestic producers or workers accounting for more than 50 percent of the total production of the domestic like product." 19 U.S.C. 1671a(c)(4)(D) and 1673a(c)(4)(D), as amended by URAA.

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## WHO CAN FILE?

"Interested parties" that may file a petition are defined in the statute, 19 U.S.C. 1671a(b)(1) or 1673a(b)(1), as (1) a manufacturer, producer, or wholesaler in the United States of a domestic like product; (2) a certified or recognized union or group of workers that is representative of the industry engaged in the manufacture, production, or wholesale in the United States of a domestic like product; (3) a trade or business association, a majority of whose members manufacture, produce, or wholesale a domestic like product in the United States; (4) an association of firms, unions, or trade associations as described above; and (5) in cases involving processed agricultural products, a coalition or trade association representative of processors, or processors and producers, or processors and growers. 19 U.S.C. 1677(9)(C)-(G).

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imports.<sup>20</sup> The petition also must include a clear and concise description of the imported merchandise to be investigated, or the "subject merchandise."<sup>21</sup> The petition also must name each country in which the allegedly dumped or subsidized merchandise

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<sup>20</sup> 19 U.S.C. 1671a(b)(1) and 1673a(b)(1). In particular, the petitioner must provide detailed information identifying the petitioner and all known domestic producers of the domestic product like or most similar in characteristics and uses to the imported product, as well as information on the volume and value of the domestic like product produced by the petitioner and each domestic producer identified. For further information regarding the contents of a petition, see SAA, pp. 190 and 191 (specific petition requirements provided in legislative history to URAA); and U.S. International Trade Commission (USITC), *Antidumping and Countervailing Duty Handbook*, Sept. 1994 (3rd ed.), Part I (petition requirements before URAA amendments).

<sup>21</sup> The term "subject merchandise" has been substituted for "class or kind of merchandise" in the statute in order to conform to the terminology used in the Uruguay Round Agreements. 19 U.S.C. 1677(25), as amended by URAA.

originates or from which the merchandise is exported, identify each known exporter, foreign producer, and importer of the merchandise, and include statistical data, such as the volume and value of exports to the United States over a recent representative period (usually the three most recent calendar years), to support its allegations of material injury by reason of the alleged unfair imports.

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## WHAT IS THE SCOPE OF THE INVESTIGATION?

"Subject merchandise" is a term that defines the scope of an antidumping or countervailing duty investigation (i.e., the specific imported product or products that are under investigation). The petition should identify the technical characteristics or precise parameters that distinguish the goods from other merchandise not intended to fall within the scope of the investigation.

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In addition to the above information, an antidumping petition must provide factual information regarding the alleged dumping relevant to the calculation of the export price or constructed export price of the subject merchandise and the normal value of the foreign like product.<sup>22</sup> A countervailing duty petition must identify the alleged subsidies and provide factual information concerning the nature and amount of any subsidy provided with respect to the subject merchandise, including the authority under which they are provided, the manner in which they are paid, and the value of the subsidies to producers and exporters of the merchandise. If an upstream subsidy is alleged, the petition must include information on domestic subsidies that the government of the affected country provides to the upstream supplier, the competitive benefit the subsidies bestow on the merchandise, and the significant effect the subsidies have on the cost of producing the merchandise.

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<sup>22</sup> The term "foreign like product" has been substituted for "such or similar merchandise" in the statute in order to conform to the terminology used in the Uruguay Round Agreements. 19 U.S.C. 1677(16), as amended by URAA.

## ***Review of the Petition and Initiation of an Investigation***

Antidumping and countervailing duty petitions are filed simultaneously (i.e., on the same day) with Commerce and the Commission.<sup>23</sup> Commerce notifies the government of any exporting country named in the petition by delivering a public version of the petition to an appropriate government representative.<sup>24</sup>

Generally, within 20 days after the date on which the petition is filed, Commerce determines whether the petition alleges the elements necessary for the imposition of a duty and contains information reasonably available to the petitioner supporting the allegations,<sup>25</sup> and if the petition has been filed by or on behalf of the industry.<sup>26</sup> If the petition does not establish sufficient support by the domestic producers or workers, Commerce must poll the domestic industry regarding support for the petition and may postpone its determination on the sufficiency of the petition to a maximum of 40 days after the filing of the petition.<sup>27</sup> If the determination is affirmative, Commerce initiates an investigation to determine whether dumping or subsidies exist; if the determination is negative, Commerce dismisses the petition and terminates the proceeding.<sup>28</sup>

<sup>23</sup> Commerce also has the authority to self-initiate an investigation whenever it determines, from information available to it, that a formal investigation is warranted.

<sup>24</sup> 19 U.S.C. 1671a(b)(4)(A) and 1673a(b)(3)(A), as amended by URAA. Although there was no similar requirement in previous law, Commerce policy was to notify appropriate embassies.

<sup>25</sup> See 19 U.S.C. 1671a(c)(1)(A)(i) and 1673a(c)(1)(A)(i), as amended by URAA. Because most petitions are submitted in draft form to both agencies before filing, deficiencies generally are identified and remedied before filing. The URAA amendments added a provision whereby the agencies are prohibited from disclosing information with regard to any draft petition before it is filed. 19 U.S.C. 1671a(b)(4)(C) and 1673a(b)(3)(C), as amended by URAA.

<sup>26</sup> 19 U.S.C. 1671a(c) and 1673a(c), as amended by URAA. Before the URAA, the statute made no provision for Commerce to poll the domestic industry to determine whether the petition had been filed on behalf of the industry.

<sup>27</sup> 19 U.S.C. 1671a(c) and 1673a(c), as amended by URAA. This provision is new; there was no similar requirement in previous law.

<sup>28</sup> In either case, Commerce publishes a notice of its findings in the *Federal Register*. From January 1980 to September 1993, 88 title VII investigations (evenly divided between antidumping and countervailing duty investigations) were terminated either because Commerce declined to initiate an investigation or the petition was withdrawn.

## ***Preliminary Investigation by the Commission***

### **WHAT ARE NEGLIGIBLE IMPORTS?**

Negligible imports, with a few exceptions, are defined as imports from the country subject to investigation that account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period preceding the filing of the petition. The negligibility exception generally does not apply if the aggregate volume of subject imports from all countries, which otherwise would be deemed to have negligible imports and on which investigations were initiated on the same day, exceeds 7 percent. Moreover, for countervailing duty investigations, the negligibility threshold for certain developing countries is 4 percent, rather than 3 percent, for the volume of imports from individual countries and 9 percent for the aggregate volume of imports. If the Commission determines that imports are negligible, it does not make a material injury or threat determination.

Within 25 days after the date on which the Commission receives notice from Commerce of initiation of the investigation,<sup>29</sup> the Commission determines, based on the information available to it at the time, whether there is a "reasonable indication"

<sup>29</sup> This means that the Commission's preliminary determination may be made up to 65 days after filing of the petition if Commerce postpones initiation of the investigation because of its polling of the industry for support of the petition. 19 U.S.C. 1671b(a)(2) and 1673b(a)(2), as amended by URAA. Before the URAA, the deadline for the Commission's preliminary determination was within 45 days from the date the petition was filed.

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## **MATERIAL INJURY BY REASON OF SUBJECT IMPORTS: STATUTORY FACTORS CONSIDERED BY COMMISSION**

In evaluating the volume of imports, the Commission considers whether the volume of subject imports, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.

In evaluating the effect of imports of subject merchandise on prices, the Commission considers (1) whether there has been significant price underselling by the imported merchandise as compared with the price of domestic like products in the United States and (2) whether the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.

In examining the impact of subject imports on domestic producers of like products, the Commission considers all relevant economic factors which have a bearing on the state of the industry in the United States. These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investments, ability to raise capital, research and development, and, for antidumping investigations, the magnitude of the margin of dumping. The Commission considers all relevant factors within the context of the business cycle and conditions of competition that are distinctive to the affected industry. 19 U.S.C. 1677(7)(C), as amended by URAA.

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that an industry<sup>30</sup> in the United States is materially injured,<sup>31</sup> or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of the subject merchandise and that such imports are not negligible.<sup>32</sup> If the Commission determines that such imports are negligible, the investigation is terminated.

To determine if there is material injury to a domestic industry by reason of subject imports, the Commission considers the volume of imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product.<sup>33</sup> To determine if there is threat of material injury to the domestic industry by reason of the subject merchandise, the Commission determines "whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued. . . ."<sup>34</sup>

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<sup>30</sup> The Commission must first define the domestic like product and the domestic industry. 19 U.S.C. 1677(4)(A) and (10), as amended by URAA.

<sup>31</sup> The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant." 19 U.S.C. 1677(7)(A).

<sup>32</sup> 19 U.S.C. 1671b(a)(1) and 1673b(a)(1) as amended by URAA. A new provision to conform with the URA, 19 U.S.C. 1677(24), defines negligible imports. Before the URAA, a separate determination on negligibility was not required apart from its consideration in determining whether imports from more than one country should be cumulated.

<sup>33</sup> 19 U.S.C. 1677(7)(B), as amended by URAA. Before the URAA amendments, the statute did not require that "the magnitude of the margin of dumping" be considered as a factor for the Commission to consider.

<sup>34</sup> 19 U.S.C. 1677(7)(F)(i) and (ii), as amended by URAA. The Commission's determination "may not be made on the basis of mere conjecture or supposition." Ibid. The URAA provided no substantive change to Commission threat analysis. Specific differences in the law before the URAA included: an additional factor requiring the Commission to consider the presence of underutilized capacity for production in the exporting country; the consideration of market penetration only, and not of the volume of imports, in determining the likelihood that the penetration will increase to an injurious level; and the consideration of any substantial increase in inventories in the United States. Although the URAA refers to imports as being imminent whereas previous law referred to actual injury as being imminent and the threat as being real, the legislative history to the URAA indicates that Congress does not consider this a change from preexisting Commission practice. SAA, p. 184.



## **THREAT OF MATERIAL INJURY BY REASON OF SUBJECT IMPORTS: STATUTORY FACTORS CONSIDERED BY COMMISSION**

The statutory factors considered by the Commission in making a threat determination include: information on countervailable subsidies, if applicable; the likelihood of increases in imports because of existing unused capacity or increases in production capacity, or due to increases in volume or market penetration of subject merchandise; the likelihood of increases in demand for imports because of import prices that depress or suppress domestic prices; inventories of subject merchandise; potential for product shifting; actual or potential negative effects on existing development and production efforts; and other demonstrable adverse trends.

Finally, in the few cases where the Commission has considered whether the establishment of an industry in the United States is materially retarded<sup>35</sup> by reason of imports of the subject merchandise, the Commission first determines whether the domestic industry is "established," that is, whether the U.S. producers have commenced production of the product and have "stabilized" their operations. If the industry is not established, the Commission considers whether the performance of the industry reflects normal startup difficulties or whether the imports of the subject merchandise have materially retarded the establishment of the industry.

<sup>35</sup> Allegations of material retardation of the establishment of an industry, which is not defined in the statute, have been relatively uncommon. See e.g., *Benzyl Paraben from Japan*, Inv. No. 731-TA-462, (Final), USITC Pub. 2355 (Feb. 1991); *Compare Wheel Inserts from Taiwan*, Inv. No. 731-TA-721 (Preliminary), USITC Pub. 2824 (Oct. 1994).

Based on the record,<sup>36</sup> each Commissioner makes a determination on the country(ies) involved in the investigation. The vote of the majority of the Commissioners participating in the decision constitutes the determination of the Commission.<sup>37</sup>

The Commission transmits its determination in a preliminary investigation to Commerce<sup>38</sup> and, in 5 working days, the Commission forwards to Commerce the facts and conclusions on which its determination is based, i.e., its opinion, or views.<sup>39</sup> If the determination is negative, the investigation is terminated.<sup>40</sup>

<sup>36</sup> The record includes all information submitted to or obtained by the Commission, including: a confidential report prepared by staff that presents and analyzes the statistical data and other information collected through Commission questionnaires to producers and importers, the Commission conference, public documents, field visits, telephone interviews, and other sources; a memorandum prepared by staff regarding legal issues in the investigation; the transcript of the Commission conference; the postconference briefs filed by the parties that present their positions; and all other information obtained by the Commission in the course of its investigation. 19 U.S.C. 1516a(b)(2).

<sup>37</sup> An evenly divided vote by the Commission constitutes an affirmative determination in antidumping and countervailing duty investigations. 19 U.S.C. 1677(11).

<sup>38</sup> 19 U.S.C. 1671b(a)(2) and 1673b(a)(2), as amended by URAA. The Commission is required by statute to transmit its determination within 45 days after the date of filing of the petition, or, if Commerce has postponed its sufficiency determination in order to poll the industry, 25 days after the Commission receives notice that Commerce has initiated the investigation. Before the URAA, the statute required the Commission determination and views to be transmitted to Commerce within 45 days after the date of the filing of the petition, with no exception.

<sup>39</sup> 19 U.S.C. 1671b(f) and 1673b(f), as amended by URAA. Before the URAA, the statute required the Commission's conclusions to be transmitted to Commerce with the Commission's determination.

The determination is subsequently published in the *Federal Register*, and a publication containing the determination, nonconfidential views of the Commission, and the nonconfidential version of the staff report is printed for distribution to the public.

<sup>40</sup> Between January 1980 and September 1993, the Commission made 197 negative preliminary determinations in title VII investigations; this represents 22 percent of total Commission preliminary determinations for that period.

## Preliminary Investigation by Commerce

Following the Commission's affirmative preliminary determination, Commerce makes its preliminary determination within 140 days after the date on which the investigation is initiated in antidumping cases or 65 days in countervailing duty cases.<sup>41</sup> Commerce makes its determination based upon the information available to it at the time, of whether there is a reasonable basis to believe or suspect that the subject merchandise is being, or is likely to be, sold at LTFV, or whether a subsidy is being provided with respect to the subject merchandise. Commerce's preliminary determination includes the factual and legal conclusions on which the determination was based and the estimated weighted-average dumping margin (the amount by which the normal value, formerly termed foreign market value, exceeds the United States price), if any, or the subsidy margin for each firm or country investigated. In antidumping investigations, Commerce calculates a dumping margin for individual firms that it investigates and an appropriate "all other" rate for firms not investigated. The "all other" rate generally is equal to the weighted average of the individual firm rates, exclusive of *de minimis* margins<sup>42</sup> or margins determined entirely on the basis of facts available.<sup>43</sup>

<sup>41</sup> Commerce has the statutory authority to postpone its preliminary determination by up to 50 days in antidumping cases and by up to 65 days in countervailing duty cases. It may do so either (1) by declaring the investigation extraordinarily complicated or (2) at the request of the petitioner, if such request is made no later than 25 days before the scheduled date of the determination. 19 U.S.C. 1671b(c) and 1673b(c).

<sup>42</sup> Under the URAA, weighted-average dumping margins of less than 2 percent are defined as *de minimis* and, thus, must be disregarded by Commerce in making its determination. 19 U.S.C. 1673b(b)(3), as amended by URAA. Before the URAA, *de minimis* dumping margins were defined in Commerce regulations as any weighted-average dumping margin that was less than 0.5 percent. 19 C.F.R. 353.6. The change in the definition of *de minimis* under the URAA applies only to new antidumping investigations, not to reviews of antidumping orders or suspended investigations to which the Commerce regulatory standard for *de minimis* of less than 0.5 percent still applies. See SAA, pp. 174 and 175.

<sup>43</sup> 19 U.S.C. 1673b(d), as amended by URAA. The URAA added the requirement to exclude margins that are *de minimis* or based on facts available (formerly, "best information available" or "BIA," 19 U.S.C. 1677e, as amended by URAA). Before the URAA, the "all other" rate was a weighted-average of individual firms' rates including those rates that were based on facts available or BIA. See SAA, p. 203.

In antidumping investigations, Commerce uses responses to questionnaires from foreign exporters or producers to establish the statutory values required for comparison of the "United States price" and the "normal value," and, thus, to determine the dumping margin. Commerce first determines the United States price, which may be based on either "export price" (formerly, "purchaser price") or "constructed export price" (formerly, "exporter's sales price"). If the import transaction involves a foreign exporter that is unrelated to the U.S. purchaser, the export price is used; when the two parties are related, the constructed export price is used as the basis of comparison. "Export price" is "the price at which the subject merchandise is first sold (or agreed to be sold) before the date of importation by the producer or exporter of the subject merchandise outside of the United States to an unaffiliated purchaser in the United States or to an unaffiliated purchaser for exportation to the United States. . . ."<sup>44</sup> "Constructed export price" is "the price at which the subject merchandise is first sold (or agreed to be sold) in the United States before or after the date of importation by or for the account of the producer or exporter of such merchandise. . . ."<sup>45</sup>

Commerce generally computes dumping margins by comparing normal value, based on home market sales of the foreign like product, to the United States price, based on export sales to the United States. If home market sales are inadequate, i.e., home market sales by the exporter account for less than 5 percent of the quantity of the sales by the exporter to the U.S. market, normal value is based on sales to a third country. The third country is selected on the basis of whether its exports are most similar to exports to the United States, its market is "viable," i.e., sales to the third country must account for at least 5 percent of sales to the United States, and its market, in terms of organization and development, is most like the U.S. market.<sup>46</sup> If third country sales also are inadequate, normal value may be based on constructed value, which is calculated by adding manufacturing costs of the merchandise in the home market country;

<sup>44</sup> 19 U.S.C. 1677a(a), as amended by URAA. The URAA changed the prior reference regarding purchase to first sale to an unaffiliated purchaser.

<sup>45</sup> 19 U.S.C. 1677a(b), as amended by URAA. The URAA added the reference to the first sale in this provision. The URAA also added a new adjustment regarding the deduction of profits to the calculation of the constructed export price which reflects language in the URA. See SAA, p. 153.

<sup>46</sup> 19 U.S.C. 1677b(a)(1), as amended by URAA. See also SAA, pp. 156-160. Before the URAA, the law did not include an explicit provision stating the circumstances under which a third country market was viable.

selling, general and administrative (SG&A) expenses and profits; and packaging costs.<sup>47</sup>

In determining normal values, Commerce may disregard sales that are made below costs within an extended period of time and in substantial quantities.<sup>48</sup> Disregarding such sales may in some circumstances prevent Commerce from either using home market sales or third country sales as a basis for normal value. In addition, there are special rules for finding normal value with respect to imports from nonmarket economies.<sup>49</sup>

When comparing the normal value to the United States price in order to determine the dumping margin, Commerce must make an "apples to apples" comparison, i.e., Commerce must compare (1) the weighted-average normal value to the weighted-average United States price (either export price or constructed export price) for comparable merchandise or (2) the normal values of individual transactions to the United States prices (either export prices or constructed export prices) of individual transactions for comparable merchandise.<sup>50</sup>

<sup>47</sup> 19 U.S.C. 1677b(e), as amended by URAA. When the constructed value method is used for the calculation of normal value, the actual SG&A and profits of the exporter or producer under investigation are to be used if available. If such factual data are not available, alternative methods are provided that include either using averages of data collected for other exporters or estimating SG&A expenses and profits that would be normal for such an industry. The law no longer includes minimum percentages to be used for SG&A expenses and profits. Before the URAA, the statute set an amount for general expenses of at least 10 percent of the cost of manufacture and a profit margin of at least 8 percent of general expenses and costs. Commerce generally used either the actual value of general expenses and profits determined from the investigated firm's books, if available, or the respective statutory minimum percentage, whichever was greater. See SAA, pp. 169-171.

<sup>48</sup> 19 U.S.C. 1677b(b), as amended by URAA. The URAA amended the statute to provide that below-cost sales need occur only *within* (rather than over as in the law before the URAA) an extended period of time. This means that Commerce no longer must find that below-cost sales occurred in a minimum number of months before excluding such sales from its normal value analysis and that Commerce will examine below-cost sales occurring during the entire period of investigation rather than in a shorter time period. See SAA, pp. 161 and 162. The URAA also changed the definition of substantial quantities from a benchmark of 10 to 20 percent. 19 U.S.C. 1677b(b)(2)(C), as amended by URAA.

<sup>49</sup> 19 U.S.C. 1677b(c), as amended by URAA.

<sup>50</sup> 19 U.S.C. 1677f-1(d), as amended by URAA. There is an exception that permits Commerce to compare weighted-average normal values to individual United States prices where targeted dumping may be occurring and Commerce can explain why the exception should

In countervailing duty investigations, Commerce uses responses to questionnaires from the government of each country involved as well as producers, manufacturers, and exporters to determine the monetary benefit<sup>51</sup> derived by each company from each government program alleged to confer a countervailable subsidy. Of the three types of countervailable subsidies (i.e., export, import substitution, and domestic) set forth in the statute, the first two are defined by statute as being "specific" and, thus, countervailable.<sup>52</sup> For domestic subsidies, Commerce must apply a "specificity" test to determine if they are countervailable. The specificity test is intended to avoid the imposition of countervailing duties in situations where, because of the widespread availability and use of a subsidy, the benefit of the subsidy is spread throughout an economy.

Commerce calculates individual countervailing subsidy rates for each exporter or producer investigated by dividing the weighted-average net amount of the subsidy conferred on a particular company by the company's total sales in the case of domestic subsidies or the firm's total exports in the case of export subsidies.<sup>53</sup> When Commerce

<sup>50</sup>—Continued

apply. The average-to-average or transaction-to-transaction comparison is limited to antidumping investigations, with the preferred methodology for reviews of antidumping orders continuing to be a comparison of weighted-average normal value to individual United States prices. 19 U.S.C. 1677f-1(d), as amended by URAA; see also SAA, pp. 172 and 173. Before the URAA, Commerce's preferred practice, although the law permitted the comparison of averages, was to compare a weighted-average normal value to individual United States prices (either export prices or constructed export prices) in both antidumping investigations and reviews of antidumping orders.

<sup>51</sup> 19 U.S.C. 1677(5)(E), as amended by URAA. To conform to the URA, Commerce will issue regulations that set forth the details of the methodologies used to identify and measure the benefit of a subsidy. See SAA, p. 258.

<sup>52</sup> 19 U.S.C. 1677(5A), as amended by URAA. While the specificity provision was added by the URAA, it generally reflects law and practice before the URAA. See SAA, pp. 258-268.

<sup>53</sup> 19 U.S.C. 1677f-1(e), as amended by URAA. If a large number of exporters or producers are involved, there is an exception which permits Commerce to calculate individual countervailable subsidy rates for a reasonable number of exporters and producers or calculate a single countrywide subsidy rate for all exporters and producers. These provisions apply to investigations and reviews of countervailing duty orders. Before the URAA, Commerce normally calculated a countrywide rate applicable to all exporters and producers, pursuant to 19 U.S.C. 1671e(a)(2), repealed.

examines a limited number of companies, it calculates an "all other" rate that generally is equal to the weighted-average countervailable subsidy rates established for exporters and producers individually investigated, exclusive of *de minimis* countervailable subsidy margins<sup>54</sup> or margins determined entirely on the basis of facts available.<sup>55</sup>

If the petitioner submits an allegation of critical circumstances not later than 20 days before the scheduled date for Commerce's preliminary determination, Commerce must make a preliminary finding on the issue as part of its preliminary determination.<sup>56</sup> The "critical circumstances" provisions in the antidumping and countervailing duty laws allow for the limited retroactive imposition of duties if Commerce determines that there has been a surge of imports of the subject merchandise prior to the suspension of liquidation, and the Commission determines that the surge in imports will undermine the effectiveness of relief.<sup>57</sup>

<sup>54</sup> Under the URAA, a countervailable subsidy generally is defined as *de minimis* if the aggregate of the net countervailable subsidies is less than 1 percent; *de minimis* margins must be disregarded by Commerce in making its determination. There are exceptions for developing countries that define *de minimis* as countervailable subsidy rates that do not exceed 2 percent and for least developed countries that define *de minimis* as rates that do not exceed 3 percent. 19 U.S.C. 1671b(b)(4), as amended by URAA. Before the URAA, *de minimis* countervailing subsidy margins were defined in Commerce regulations as any aggregate net subsidy margin that was less than 0.5 percent. 19 C.F.R. 355.7. The change in the definition of *de minimis* under the URAA applies only to countervailing subsidy investigations, not to reviews of countervailing duty orders to which the Commerce regulatory standard for *de minimis* of less than 0.5 percent still applies. See SAA, pp. 268 and 269.

<sup>55</sup> 19 U.S.C. 1671d(c)(5), as amended by URAA. The URAA added the "all other" rate provision to the statute. Before the URAA, Commerce generally issued a countrywide countervailable subsidy margin.

<sup>56</sup> Petitioner may amend the petition to allege critical circumstances at any time more than 20 days before Commerce's final determination.

<sup>57</sup> For a critical circumstances finding in an antidumping investigation, Commerce determines (1) whether (a) there is a history of dumping and material injury by reason of dumped imports in the United States or elsewhere of the subject merchandise or (b) importers knew or should have known that the exporters were selling the subject merchandise at LTFV and that there was likely to be material injury by reason of such sales and (2) whether there have been massive imports of the subject merchandise over a relatively short period. 19 U.S.C. 1673b(e)(1) and 1673d(a)(3), as amended by

## Suspension of Liquidation

If Commerce's preliminary determination is affirmative, it instructs the U.S. Customs Service (Customs) to order the suspension of liquidation of all entries of the subject imports that are entered, or withdrawn from warehouse for consumption, on or after the later of the date of publication of the notice of determination in the *Federal Register* or the date that is 60 days after publication of the notice of initiation of the investigation in the *Federal Register*.<sup>58</sup> If Commerce makes a preliminary affirmative determination of critical circumstances, the suspension of liquidation applies retroactively for 90 days<sup>59</sup> to all unliquidated entries of merchandise entered, or withdrawn from warehouse for consumption. Thereafter, importers are required to post a cash deposit, a bond, or other security for each entry of subject merchandise equal to the estimated amount by which the normal value exceeds the United States price, or equal to the estimated amount of the net subsidy. If the preliminary determination is negative, Commerce nevertheless conducts a final investigation, although there is no suspension of liquidation and, thus, no requirement that importers post a cash deposit or bond.

## Suspension Agreements<sup>60</sup>

Commerce may suspend an antidumping investigation if exporters that account for substantially

### <sup>57</sup>—Continued

URAA. In a countervailing duty investigation, Commerce determines whether (1) the subsidy is inconsistent with "the Subsidies Agreement" and (2) there have been massive imports of the subject merchandise over a relatively short period. 19 U.S.C. 1671b(e)(1) and 1671d(a)(2), as amended by URAA. The URAA added the requirement for antidumping investigations that Commerce must determine that "there was likely to be material injury by reason of the such [LTFV] sales." For a discussion of the Commission's finding, see footnote 76 *infra*. 19 U.S.C. 1671d(b)(4) and 1673d(b)(4), as amended by URAA.

<sup>58</sup> A new statutory provision to conform to the URAA limits the duration of Commerce's preliminary order to Customs to 4 months, with an extension to 6 months permitted for antidumping cases, if exporters of a significant proportion of exports of the subject merchandise agree.

<sup>59</sup> For a critical circumstances finding, the suspension of liquidation would apply on the later of 90 days before the date suspension of liquidation was first ordered or the publication date of the notice of initiation of investigation.

<sup>60</sup> This section specifically applies to the case study investigations on concentrated orange juice, EPROMs, and standard welded pipes discussed in chapters 7, 9, and 13 of this report.

all imports of the subject merchandise agree to cease exports of the merchandise to the United States within 6 months after the investigation is suspended or to revise their prices to eliminate completely any amount by which the normal value of the subject merchandise exceeds the United States price, or to eliminate completely the injurious effect of the imports.<sup>61</sup> Similarly, Commerce may suspend a countervailing duty investigation if the government of the country in which the subsidy practice is alleged to occur agrees, or exporters who account for substantially all imports of the subject merchandise agree, within 6 months after the investigation is suspended, to eliminate the subsidy or offset completely the amount of the net subsidy, or to cease exports of the subject merchandise to the United States or to eliminate the injurious effect of the imports.<sup>62</sup> Commerce may suspend an investigation only if it is satisfied that such suspension is in the public interest and effective monitoring of a suspension agreement is practical.<sup>63</sup>

If Commerce determines to suspend an investigation,<sup>64</sup> it must publish in the *Federal Register* a notice of suspension of the investigation and issue an affirmative preliminary determination, with dumping or subsidy margins but without ordering suspension of liquidation,<sup>65</sup> and the Commission must

<sup>61</sup> 19 U.S.C. 1673c. Commerce may suspend an investigation only in extraordinary circumstances (i.e., suspension will be more beneficial to the domestic industry than a complex investigation) based on an agreement to eliminate the injurious effect.

<sup>62</sup> 19 U.S.C. 1671c.

<sup>63</sup> 19 U.S.C. 1671c(d) and 1673c(d). In addition, if the suspension agreement is with a nonmarket economy country to restrict the volume of imports, Commerce also must determine that the suppressing or undercutting of domestic prices will be prevented by the agreement. 19 U.S.C. 1673c(l).

<sup>64</sup> Before suspending an investigation upon acceptance of an agreement, Commerce must notify the petitioner, other parties to the investigation, and the Commission of its intention to suspend, must provide a copy of the proposed agreement to the petitioner, together with an explanation of how the agreement will be carried out and enforced, and must permit all interested parties an opportunity to submit comments. 19 U.S.C. 1671c(e) and 1673c(e).

<sup>65</sup> If Commerce has already issued an affirmative preliminary determination and ordered suspension of liquidation, it must instruct Customs to terminate the suspension of liquidation and release any bond or other security and refund any cash deposit made up to that point.

suspend any investigation it is conducting.<sup>66</sup> If Commerce rejects a suspension agreement, it must provide its reasons for the rejection and, where possible, provide exporters with an opportunity to submit comments.

If Commerce determines that a suspension agreement is being, or has been, violated, it will order the suspension of liquidation and the investigation will resume, if it had not been completed.<sup>67</sup> If the original investigation was completed, Commerce will issue an antidumping or countervailing duty order.

## Final Investigation by Commerce

Generally, within 235 days after the date on which the petition is filed in antidumping cases or 160 days in countervailing duty cases, Commerce makes a final determination<sup>68</sup> that includes (1) an analysis of issues raised by interested parties<sup>69</sup> and the Department's rulings on those issues, and (2) the estimated weighted-average dumping or subsidy margin, if any, for each firm or country investigated.<sup>70 71</sup>

<sup>66</sup> 19 U.S.C. 1671c(f) and 1673c(f). Certain interested parties may request continuation of the investigation or review of the suspension, within 20 days of the publication of the notice that the investigation is suspended. See 19 U.S.C. 1671c(g) and (h), and 1673c(g) and (h).

<sup>67</sup> 19 U.S.C. 1671c(i) and 1673c(i).

<sup>68</sup> Commerce has the statutory authority to postpone its final determination by up to 60 days in antidumping investigations. It may do so at the request of either (1) the petitioner, if the preliminary determination was negative or (2) the exporters if the preliminary determination was affirmative, providing that such request is made no later than the scheduled date for the final determination. 19 U.S.C. 1673d(a)(2).

If the petitioner submits an allegation of critical circumstances more than 20 days before the scheduled date for Commerce's final determination, Commerce must make a finding in its final determination on the critical circumstances factors discussed *supra*.

<sup>69</sup> Interested parties may file case briefs, rebuttal briefs, and request that Commerce hold a public hearing.

<sup>70</sup> In antidumping investigations and some countervailing duty investigations, an appropriate "all other" rate is also issued for firms not investigated, which generally is equal to the weighted average of the individual firm rates, exclusive of *de minimis* margins or margins determined entirely on the basis of facts available. 19 U.S.C. 1671d(c)(1) and (5), and 1673d(c)(1) and (5), as amended by URAA. See footnotes 43 and 55 *supra*, regarding previous law.

<sup>71</sup> In the computable partial equilibrium analyses of the case studies of chapters 7 through 14 in this report, Commerce's "all other" margin for each country is used as the measure of dumping or subsidy, where a range of rates was assessed.

If Commerce's final determination is affirmative, it instructs Customs to continue to order the suspension of liquidation of all entries of the subject merchandise that are entered, or withdrawn from warehouse for consumption.<sup>72</sup> If Commerce's final determination is negative, it instructs Customs to terminate the suspension of liquidation and release any bond or other security and refund any cash deposit made up to that point.

## ***Final Investigation by the Commission***

The Commission makes a final determination within 120 days after the date on which Commerce makes its affirmative preliminary determination or 45 days after Commerce's affirmative final determination,<sup>73</sup> whichever is later. As in its preliminary determination, the Commission considers the statutory factors regarding material injury, threat of material injury, and material retardation but no longer applies the "reasonable indication" standard. The vote of the majority of the Commission constitutes the Commission's determination.<sup>74</sup> The Commission notifies Commerce of its final determination.<sup>75</sup>

<sup>72</sup> See discussion of suspension of liquidation *supra*.

<sup>73</sup> If Commerce's preliminary determination was negative, the Commission's final determination must be transmitted 75 days after notification of Commerce's final affirmative determination.

<sup>74</sup> The Commission's determination is based on the agency record in the investigation, which includes the final confidential staff report and other memoranda regarding legal and economic issues prepared by the staff, the transcript of the Commission hearing, the briefs of the parties, and other information. The record is closed prior to the Commission's vote. Interested parties to the investigation are permitted to have access to all information of record and make final comments, which cannot contain new factual information, on all information not previously disclosed. Before the URAA, the record was closed at the time of the vote, with disclosure and comments permitted if there was sufficient time before the Commission's vote. The more comprehensive opportunity for parties to the investigation to inspect the record and comment is a new provision under the URAA amendments. See 19 U.S.C. 1677m(g), as amended by URAA, and new Commission rule 207.29.

The Commission's determination is subsequently published in the *Federal Register*, and a publication containing the determination, nonconfidential views of the Commission, and the nonconfidential version of the staff report is printed for distribution to the public. See 19 U.S.C. § 1677(11).

<sup>75</sup> Between January 1980 and September 1993, 340 of the Commission's final determinations in title VII

Under certain circumstances, the Commission must make additional findings in its final affirmative determination. First, if Commerce makes an affirmative final determination regarding the existence of critical circumstances, and the Commission makes an affirmative final determination of present material injury by reason of dumped imports, the Commission must make an additional finding as to whether the surge in imports of the subject merchandise prior to suspension of liquidation is likely to undermine seriously the remedial effect of the antidumping or countervailing duty order.<sup>76</sup> An affirmative finding regarding critical circumstances by the Commission means that limited retroactive duties will be assessed.

Second, if the Commission makes an affirmative final determination of threat of material injury, it must make an additional finding as to whether it would have found present material injury but for the suspension of liquidation of entries of the subject merchandise. This finding determines the effective date of the imposition of duties: if affirmative, duties are effective on the date of suspension of liquidation; if negative, duties are effective on the date of publication in the *Federal Register* of the notice of the Commission's final affirmative determination.

If the Commission's final determination is negative, Commerce instructs Customs to terminate the suspension of liquidation and release any bond or other security and refund any cash deposit made up to that point.

### <sup>75</sup>—Continued

investigations were affirmative; this accounts for 62 percent of total Commission final determinations for that period. For antidumping investigations, 69 percent of total Commission final determinations were affirmative, whereas for countervailing duty investigations, 47 percent of total final determinations, were affirmative. See chapter 3 of this report for a detailed summary of antidumping and countervailing duty activity and final determinations.

<sup>76</sup> 19 U.S.C. 1671d(b)(4)(A) and 1673d(b)(4)(A), as amended by URAA. See SAA, p. 207. In making this evaluation, the Commission is to consider (1) the timing and the volume of the imports, (2) any rapid increase in inventories of imports, and (3) any other circumstances indicating that the remedial effect of the antidumping or countervailing duty order will be seriously undermined. *Ibid.* Before the URAA, the Commission was required to determine whether the retroactive imposition of duties appeared necessary to prevent recurrence, and whether the order would be materially impaired if imposition did not occur based on consideration of such factors as the condition of the domestic industry, whether the surge in imports resulted from efforts to avoid duties or foreign economic conditions, and whether the impact of the surge of imports was likely to continue.

## ***The Antidumping or Countervailing Duty Order***

Within 7 days after being notified by the Commission of an affirmative final determination, Commerce publishes in the *Federal Register* an antidumping or countervailing duty order.<sup>77</sup> Thereafter, importers are required to pay a cash deposit<sup>78</sup> for each entry of the subject merchandise after publication of the order, equal to the amount of the estimated antidumping or countervailing duties times the value of the subject merchandise, pending liquidation of the entries of merchandise and assessment of final duties.<sup>79</sup>

Duties are levied on all subject merchandise entered on or after the date of suspension of liquidation (i.e., Commerce's preliminary affirmative determination) unless the Commission's final determination is based on threat of material injury<sup>80</sup> or material retardation; in these cases, duties are required only on merchandise entered on or after the date of publication of the Commission's final affirmative determination.<sup>81</sup>

## ***Assessment of Antidumping and Countervailing Duties***

Each year during the anniversary month of the publication of an antidumping or countervailing duty

<sup>77</sup> 19 U.S.C. 1671e and 1673e. The order describes the subject merchandise to which it applies, requires the deposit of estimated antidumping or countervailing duties pending liquidation of entries, and directs Customs to assess a duty equal to the amount by which the normal value of the subject merchandise exceeds the United States price of the subject merchandise or the amount of the net countervailable subsidy.

<sup>78</sup> The posting of a bond or other security is permitted only under special circumstances.

<sup>79</sup> In the computable partial equilibrium analyses of the case studies of chapters 7 through 14 in this report, Commerce's "all other" margin for each country is used as the measure of the dumping or subsidy remedy when a range of duties has been assessed.

<sup>80</sup> This exception does not apply to a threat of material injury determination in which the Commission determines that but for the suspension of liquidation it would have found present material injury. 19 U.S.C. 1671e(b) and 1673e(b).

<sup>81</sup> In these cases, Commerce releases any bond or other security and refunds any cash deposit made to secure the payment of antidumping or countervailing duties related to subject merchandise that was entered, or withdrawn from warehouse for consumption, before the

order or suspension agreement, an interested party<sup>82</sup> may request that Commerce conduct an administrative review of the amount of any net countervailable subsidy, antidumping duty, or the status of compliance with a suspension agreement. The administrative review covers entries of the merchandise during the 12 months immediately preceding the most recent anniversary month for antidumping cases, and entries during the most recently completed reporting year of the government of the affected country for countervailing duty cases.

In conducting an administrative review, Commerce (1) issues the preliminary results of the administrative review, along with an invitation for comment, within 245 days of the anniversary month;<sup>83</sup> (2) issues the final results within 120 days after publication of the preliminary results;<sup>84</sup> (3) provides to parties a disclosure of the methodology used in reaching the final results; and (4) instructs Customs to assess final antidumping or countervailing duties on the subject merchandise entered during the review period (i.e., liquidation of entries)<sup>85</sup> and to collect a cash deposit equal to the newly estimated margins on entries for at least the next 12 months. If no interested party requests an administrative review, Commerce instructs Customs to (1) liquidate entries during the review period at rates equal to the estimated antidumping or countervailing duties required to be posted as cash deposits on that merchandise at the time of entry and (2) continue to collect the cash deposits at the rate previously ordered.

<sup>81</sup>—Continued

date of publication of the Commission's final determination.

<sup>82</sup> For interested parties that are new shippers, the law, which was amended in 1994 to conform to the URA, requires Commerce to accelerate administrative reviews. Such new shippers, which are liable for antidumping duties under the all other rate, must not have exported to the United States during the original investigation and must not be affiliated with any original exporter. 19 U.S.C. 1675(a)(2)(B), as amended by URAA.

<sup>83</sup> The preliminary results consist of (1) factual and legal conclusions; (2)(a) the weighted-average dumping margin for each company reviewed or (b) the net countervailable subsidy on a countrywide basis, the estimated net subsidy for cash deposit purposes, and a description of changes in subsidy programs; and (3) in the case of suspension agreements, conclusions with respect to the status of, and compliance with, the agreement.

<sup>84</sup> In general, the final results consist of the same types of information as the preliminary results.

<sup>85</sup> Any liquidation of entries ordered by Commerce pursuant to an administrative review must be completed by Customs within 90 days of such instructions.

## ***Review and Revocation of Orders and Suspended Investigations***

Commerce may revoke an antidumping order or terminate a suspended antidumping investigation, in whole or in part, if it concludes that all or some of the producers and exporters covered by the order or suspension agreement have sold the subject merchandise at not less than foreign market value for a period of at least 3 consecutive years and that they are unlikely to do so in the future.<sup>86</sup> It may revoke a countervailing duty order or terminate a suspended countervailing duty investigation if it concludes that (1) the government of the affected country has eliminated all subsidies on the imported merchandise by abolishing all countervailable programs for the subject merchandise for a period of at least 3 consecutive years, and (2) the government is unlikely to reinstate those programs or substitute other countervailable programs.<sup>87</sup>

The Uruguay Round Agreements Act amended the antidumping and countervailing duty laws to require that Commerce and the Commission conduct "sunset reviews" no later than 5 years after issuance of an order, suspension of an investigation, or completion of a changed circumstances review to determine whether revocation of the relevant order or termination of the suspended investigation would be likely to lead to continuation or recurrence of dumping or countervailable subsidies and injury.<sup>88</sup> Commerce initiates the review no later than 30 days before the fifth anniversary of the relevant event by issuance of a *Federal Register* notice. If there is no response from the domestic interested parties to the notice of initiation, Commerce will revoke the order or terminate the suspended investigation within 90 days of the initiation of the review. If adequate responses are received, a sunset review will be conducted with Commerce's final sunset determination to be made within 240 days of the initiation of the review. If Commerce's determination is affirmative, the

<sup>86</sup> 19 C.F.R. 353.25(a).

<sup>87</sup> 19 C.F.R. 355.25(a). Commerce also may revoke a countervailing duty order or terminate a suspended countervailing duty investigation in whole or in part if it concludes that all or some of the producers and exporters covered by the order or suspension agreement have not applied for or received any net subsidies on the subject merchandise for a period of at least 5 consecutive years and that they are unlikely to do so in the future. 19 C.F.R. 355.25(a).

<sup>88</sup> 19 U.S.C. 1675(c), as amended by URAA.

Commission makes its final sunset determination within 360 days of the initiation of the review.<sup>89</sup>

Commerce and the Commission also may review a final affirmative determination or suspension agreement based on a request by an interested party of changed circumstances sufficient to warrant such a review.<sup>90</sup> The Commission must determine whether revocation of the order or finding, or termination of a suspension agreement, is likely to lead to continuation or recurrence of material injury.<sup>91</sup> If Commerce completely or partially revokes an order, it instructs Customs to release any cash deposit or bond and to cease suspension of liquidation of the subject merchandise on the first day after the review period.

## **Appeal Procedures**

### ***Judicial Review***

Any aggrieved interested party who is a party to a proceeding may seek judicial review by the U.S. Court of International Trade (CIT) of any factual findings or legal conclusions that are the basis for final determinations by the Commission or Commerce, or negative preliminary determinations by the Commission.<sup>92</sup> Such parties also may appeal decisions by Commerce to suspend an investigation or not to initiate an investigation, final results of administrative reviews by Commerce, decisions by the Commission not to review a determination based upon changed circumstances, and determinations made under the sunset reviews. In most of these cases, the court will consider whether any determination, finding, or conclusion is not supported by substantial evidence on the record, or otherwise is not in accordance with law. For determinations by

<sup>89</sup> 19 U.S.C. 1675(c), as amended by URAA. For orders, findings, and suspended investigations that were in effect at the time the URA entered into force with respect to the United States (January 1, 1995), the URAA provides a transition schedule for sunset reviews of these cases. Commerce must begin its review of these cases by July 1, 1998, and Commerce and the Commission must complete all transition cases by June 30, 2001.

<sup>90</sup> In the absence of good cause shown, such reviews may not occur less than 2 years from the date of publication in the *Federal Register* of such determination or suspension agreement.

<sup>91</sup> 19 U.S.C. 1675(b), as amended by URAA.

<sup>92</sup> 19 U.S.C. 1516a. The parties commence an action in the CIT by filing a summons within 30 days after the date of publication of the determination or order in the *Federal Register*.



Commerce not to initiate an investigation or by the Commission not to review a determination based upon changed circumstances, determinations made under sunset reviews based on inadequate responses, and preliminary negative determinations by the Commission, the court will consider whether the determination was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

## ***Binational Panel Review***

In antidumping and countervailing duty determinations involving subject merchandise from Canada or from Mexico, any aggrieved interested party who was a party to the investigation may forego judicial review for binational panel review pursuant to Article 1904 of the North American Free Trade Agreement. If the panel remands a determination to Commerce or the Commission, those agencies must take action "not inconsistent with the decision of the panel." Subsequent action by Commerce or the Commission is subject only to further review by the panel,<sup>93</sup> or by an extraordinary challenge committee pursuant to Article 1904.13 of NAFTA.

## ***WTO Dispute Settlement Process***

The Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) of the World Trade Organization (WTO) contains dispute settlement provisions designed to resolve conflicts between signatory countries over alleged violations of the Uruguay Round Agreements, including the Antidumping and Subsidies Agreements 1994.<sup>94</sup> The

<sup>93</sup> There is an exception to the exclusive binational panel review if the agency determination or the completed binational panel review is challenged solely on the basis of a Constitutional issue; such an action is reviewed by a three-judge panel of the CIT. 19 U.S.C. 1516a(g)(4)(B) and (C).

<sup>94</sup> Before the URA, separate dispute settlement provisions were contained in the GATT Antidumping and Subsidies Agreements rather than centralized under the DSU. While the process for resolving disputes was similar to that set forth in the DSU, no central administering body, such as the DSB, was established. Moreover, the timeframe for the process generally was longer and there was no firm deadline for panel action and for action by the administering committee. See *Review of the Effectiveness of Trade Dispute Settlement Under the GATT and the Tokyo Round Agreements*, Inv. No. 332-212, USITC Pub. 1793, pp. 32-36 (Dec. 1985).

DSU provides for the following sequential process for resolving disputes: (1) mandatory consultations between the parties to the dispute,<sup>95</sup> (2) voluntary conciliation mediated by the Dispute Settlement Board (DSB), (3) proceedings before a DSB panel, which issues a report to the DSB if the dispute has not been resolved, and (4) issuance by the administering DSB of appropriate findings, rulings, or recommendations. The dispute may be resolved to the mutual satisfaction of all parties at any stage in the process, at which time the process would terminate.

If within 60 days the parties are unable to reach a solution through consultations, the complaining party may request that the DSB establish a panel.<sup>96</sup> If the dispute remains unresolved, the panel issues a report with findings and recommendations to the DSB, which adopts it within 60 days, unless a party notifies the DSB that it intends to appeal or the DSB decides by "consensus"<sup>97</sup> not to adopt the report.<sup>98</sup>

An appeal of the issues of law covered by the panel report or legal interpretations developed by the panel can be made to the standing Appellate Body of the DSB. The Appellate Body reviews the appeal and issues a report that is adopted by the DSB and unconditionally accepted by the parties to the dispute, unless the DSB declines by consensus to adopt the report within 30 days of its issuance.

The DSB explicitly applies the specific standard of review in Antidumping Agreement 1994 to all disputes involving antidumping actions.<sup>99</sup> Article

<sup>95</sup> At the consultation stage, discussions are solely among the parties concerned, although other WTO members are notified of a request for consultations.

<sup>96</sup> Members of panels, composed of either 3 or 5 members, are selected from a list of persons maintained by the DSB. Citizens of countries that are principal participants in the dispute are ineligible to serve on a panel dealing with the dispute.

<sup>97</sup> The DSB must reach all decisions by "consensus." The DSB shall be deemed to have decided by consensus on a matter presented for its consideration if no member, present at the meeting of the DSB when the decision is taken, formally objects to the proposed decision. DSU (in URA), p. 354, footnote 1.

<sup>98</sup> DSU, art. 16.4.

<sup>99</sup> Article 1.2 of the DSU provides that special or additional rules and procedures in covered multilateral trade agreements, including the Antidumping Agreement 1994, shall prevail if they differ from the DSU. Article 17.6 of the Antidumping Agreement 1994 contains special provisions regarding the standard of review for antidumping actions. While the Subsidies Agreement 1994 does not include a similar provision, the Declaration on Dispute Settlement Pursuant to Antidumping Agreement

17.6 of the Antidumping Agreement 1994 states in relevant part that:

In examining the matter [before the DSB] . . . the panel shall determine whether the authorities' establishment of the facts was proper and whether their evaluation of those facts was unbiased and objective. If the establishment of the facts was proper and the evaluation was unbiased and objective, even though the panel might have reached a different conclusion, the evaluation shall not be overturned (emphasis added).

Where a DSB panel or Appellate Body report concludes that a measure is inconsistent with a

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<sup>99</sup>—Continued

1994 or Subsidies Agreement 1994 (URA, p. 403) would appear to apply the special antidumping standards to countervailable subsidy actions.

covered Agreement, it shall recommend that the party bring the measure into conformity with that Agreement. The DSU recognizes that it may not be possible, although it is preferred, for a party to agree to the removal of a measure that the DSB has found to be inconsistent with a covered Agreement. Accordingly, the DSU provides for alternative resolutions: the party with the offending measure may enter negotiations to provide compensation or other settlements in lieu of removal of the measure. If a Member has not complied with the recommendations and rulings within a reasonable period following adoption of the DSB report, or the parties have not agreed to satisfactory compensation within 20 days after that period, the complaining party may request that the DSB authorize suspension of concessions or obligations under the covered agreements to the offending party equivalent to the "nullification or impairment" of benefits caused by the offending measure.

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## **PART II**

# **Overview and Economy-Wide Effects**



# CONTENTS

	<i>Page</i>
<b>PART II. Overview and Economy-Wide Effects</b>	
Chapter 3. An overview of existing orders .....	3-1
Introduction .....	3-1
Summary measures of case filings .....	3-1
Analyses of changes in import volumes and unit values .....	3-6
Methodology .....	3-7
Data .....	3-7
Size of the initial final margin .....	3-8
Per capita income of the exporting country .....	3-10
Growth rate of aggregate source-country exports .....	3-10
Analysis by product type .....	3-11
Analysis by product substitutability .....	3-12
Analysis of the incidence of trade diversion .....	3-14
Appendix 3-A: An overview of affirmative 1989-93 cases .....	3-A1
Chapter 4. The economy-wide effects of outstanding antidumping and countervailing duty orders .....	4-1
Implementation and assessment of AD/CVD orders .....	4-2
Methodology .....	4-3
Data .....	4-5
Original AD margin calculation .....	4-6
Actual 1991 AD/CVD margin calculation .....	4-7
CGE model sectoring scheme .....	4-7
Economic effects of AD/CVD order removal .....	4-8
Detailed economic effects of order removal .....	4-8
Net economic welfare effects of order removal .....	4-11
<b>Figures</b>	
3-1 AD case summary, 1980-93 .....	3-3
3-2 CVD case summary, 1980-93 .....	3-4
3-3 Steel and nonsteel product AD case summary, 1980-93 .....	3-4
3-4 Steel and nonsteel product CVD case summary, 1980-93 .....	3-5
3-5 AD case summary, by top 10 countries, 1980-93 .....	3-5
3-6 CVD case summary, by top 10 countries, 1980-93 .....	3-6
<b>Tables</b>	
3-1 AD investigations, 1980-93: coverage of subject imports relative to total U.S. imports and weighted average margins for new case filings, by year .....	3-2
3-2 CVD investigations, 1980-93: coverage of subject imports relative to total U.S. imports and weighted average margins for new case filings, by year .....	3-2
3-3 Average initial margins and import shares subject to AD/CVD orders initiated during 1989-93, by sample country .....	3-8
3-4. Percent changes in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by initial margin .....	3-9
3-5 Postfiling comparisons across imports that are grouped by the size of the initial margin .....	3-10
3-6 Percentage changes in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, grouped by per capita income .....	3-11
3-7 Postfiling comparisons between imports that are grouped by per capita income .....	3-11
3-8 Percentage changes in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by export growth rates .....	3-12

# CONTENTS—Continued

	<i>Page</i>
<b>Tables—Continued</b>	
3-9 Postfiling comparisons across imports that are grouped by aggregate country export growth .....	3-12
3-10 Percentage change in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by good type .....	3-13
3-11 Percentage differences in unit value and import volume when imports are grouped according to product type .....	3-13
3-12 Percentage change in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by product substitutability .....	3-14
3-13 Percentage differences in unit value and import volume and when imports are grouped according to product substitutability .....	3-14
3-14 Comparisons across time for AD subject and nonsubject imports .....	3-15
3-15 Comparison of changes in subject and nonsubject imports .....	3-15
3-A1 Trade-weighted initial margin, by country classification .....	3-A2
3-A2 Trade-weighted initial margin, by product type .....	3-A2
3-A3 Trade-weighted initial margins and share of subject imports, by substitutability .....	3-A2
4-1 AD/CVD ad valorem tariffs and additional AD price effects, 1991 .....	4-7
4-2 AD/CVD investigations included in the highlighted Commission sectors .....	4-9
4-3 Economic effects of AD/CVD removal, 1991 .....	4-10
4-4 Price effects of AD/CVD removal, 1991 .....	4-11

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# CHAPTER 3

## An Overview of Existing Orders

### Introduction

This chapter presents a general summary and trend analysis of AD/CVD cases initiated after January 1, 1980.<sup>1</sup> It provides an overall context for the more specific economic analysis provided in the chapters that follow. It also reveals a number of important insights that may be used to understand the economic effects of AD/CVD orders and investigations covering products with a number of different characteristics.

Two different types of comprehensive data and analyses are used to examine the effects of AD/CVD orders and their remedies. First, summary statistics describe—by type of investigation, year, country, and final outcome—the number of AD/CVD investigations initiated between 1980 and 1993. Second, a new U.S. Customs database is combined with other data compiled from Commission final reports to conduct simple statistical tests on import quantity and unit value data representing AD cases initiated during 1990-93.<sup>2</sup> This analysis demonstrates how prices and quantities reacted in the years before and after cases are initiated. Cases are split into individual tariff categories and grouped by margin size, product type, and degree of product substitutability to show relationships between these categorizations and the behavior of importers.

The U.S. Customs database used in this chapter is important because it contains records of U.S. imports subject to AD and/or CVD investigations or orders at some point between 1989 and the first half of 1994 by 10-digit HTS item and country.<sup>3</sup> Thus, subject import

categories are identified at the 10-digit HTS level when there are imports in this period.<sup>4</sup> The Customs database was supplemented with quantity and unit value (used as proxy for price) data for 10-digit HTS items from official U.S. Department of Commerce statistics. Data at this high level of disaggregation across so many title VII cases provide a unique opportunity for economic analysis.

The final section of this chapter uses the supplemented Customs database to examine the incidence of trade diversion in response to AD investigations and orders. Trade diversion occurs when the source of imports of a specific product is diverted from a subject country to a country that is not subject to an investigation or order. To the extent that trade diversion occurs, AD/CVD remedies may have little or no impact on overall import volume for the affected HTS line. The analysis groups imports into those subject to affirmative orders, those that are subject to investigation but are not part of an affirmative order, and nonsubject imports. Comparisons of average import quantities and unit values are used to indicate the extent of trade diversion between the various groups.

### Summary Measures of Case Filings

From 1980 through 1993, 682 AD and 358 CVD cases were filed in the United States, with 39.4 percent of the AD and 21.2 percent of the CVD cases resulting in affirmative final determinations and remedies. Despite the relatively large number of cases and remedies, tables 3-1 and 3-2 show a relatively small amount of total U.S. imports affected each year by new AD/CVD cases. Even the most active years have a very small share of imports that are subject to AD/CVD orders. However, the

<sup>1</sup> This focuses on trends in filings and final determinations in the period since the Trade Agreements Act of 1979 as data on cases before this Act are less reliable and often inconsistent.

<sup>2</sup> This period is chosen based on data availability and consistency with HTS tariff classification codes which were instituted in 1989.

<sup>3</sup> For internal usage, U.S. Customs refers to this database as the ENB database.

<sup>4</sup> Some duties imposed under AD/CVD orders are prohibitively high and there are no subject imports for Customs to process. Thus, the affected HTS lines from these prohibitive orders are not in the Customs database.

**Table 3-1**  
**AD investigations, 1980-93: Coverage of subject imports relative to total U.S. imports and weighted average margins for new case filings, by year**

Year	Subject imports	Subject imports as a share of total U.S. imports	Weighted-average margin
	Million dollars	Percent	
1980	103.7	0.04	13.2
1981	140.0	1.02	13.9
1982	194.8	.08	19.3
1983	566.1	.21	15.5
1984	93.6	.03	21.1
1985	757.7	.22	42.5
1986	1,398.0	.38	14.4
1987	372.2	.09	35.6
1988	980.5	.22	69.8
1989	1,255.0	.26	16.8
1990	694.4	.14	27.2
1991	541.7	.11	41.0
1992	2,158.0	.40	30.4
1993	258.8	.04	41.6

<sup>1</sup> Excludes data that could not be aggregated without revealing business proprietary information.

Source: U.S. Customs data and compiled by Commission staff.

**Table 3-2**  
**CVD investigations, 1980-93: Coverage of subject imports relative to total U.S. imports and weighted average margins for new case filings, by year<sup>1</sup>**

Year	Subject imports	Subject imports as a share of total U.S. imports	Weighted-average margin
	Million dollars	Percent	
1980	33.9	0.02	20.8
1981	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
1982	2,747.7	1.04	3.2
1983	<sup>3</sup> 35.5	<sup>3</sup> .01	<sup>3</sup> 34.9
1984	<sup>3</sup> 372.7	<sup>3</sup> .14	<sup>3</sup> 8.0
1985	<sup>3</sup> 164.8	<sup>3</sup> .05	<sup>3</sup> 2.6
1986	<sup>3</sup> 81.9	<sup>3</sup> .02	<sup>3</sup> 6.4
1987	61.5	.02	38.4
1988	7.0	( <sup>4</sup> )	113.6
1989	<sup>3</sup> 352.5	<sup>3</sup> .08	<sup>3</sup> 4.5
1990	93.7	.02	8.6
1991	2,926.0	.59	5.2
1992	626.9	.13	7.9
1993	15.2	( <sup>4</sup> )	24.4

<sup>1</sup> Because of data availability, only those countervailing duty cases which required an injury determination are included in the data for this section. This is not the case for subsequent sections that use the ENB database.

<sup>2</sup> Not applicable - no affirmative determinations.

<sup>3</sup> Excludes data that could not be aggregated without revealing business proprietary information.

<sup>4</sup> Shares less than 0.005 percent are recorded as zero.

Source: U.S. Customs data and compiled by Commission staff.



potentially large effects these cases have on subject imports is reflected by the magnitude of the average yearly initial margins and the cumulative imports that are subject to orders.

A first glance at the number of filings shows a fair amount of variability from year to year, with relative peak years in 1982 and 1992 (figures 3-1 and 3-2), corresponding to years with large numbers of steel product cases.<sup>5</sup> Overall, 33 percent of the total AD/CVD investigations from 1980 through 1993 had affirmative determinations, 45 percent had negative determinations,<sup>6</sup> and the remaining 22 percent were terminated or suspended. By case type, 39.4 percent of AD and 21.2 percent of CVD cases requiring an injury determination from 1980 to 1993 went affirmative.<sup>7</sup> More AD cases went negative than

<sup>5</sup> Steel products are defined to include among others, steel wire nails, steel wire rod, steel rails, steel pipe (including oil country tubular goods), steel plate, steel sheet, steel bar, steel shapes, etc.

<sup>6</sup> These include both Commerce or Commission negatives.

<sup>7</sup> In the vast majority of CVD cases where no injury determination was necessary, Commerce found a positive margin and assessed a countervailing duty.

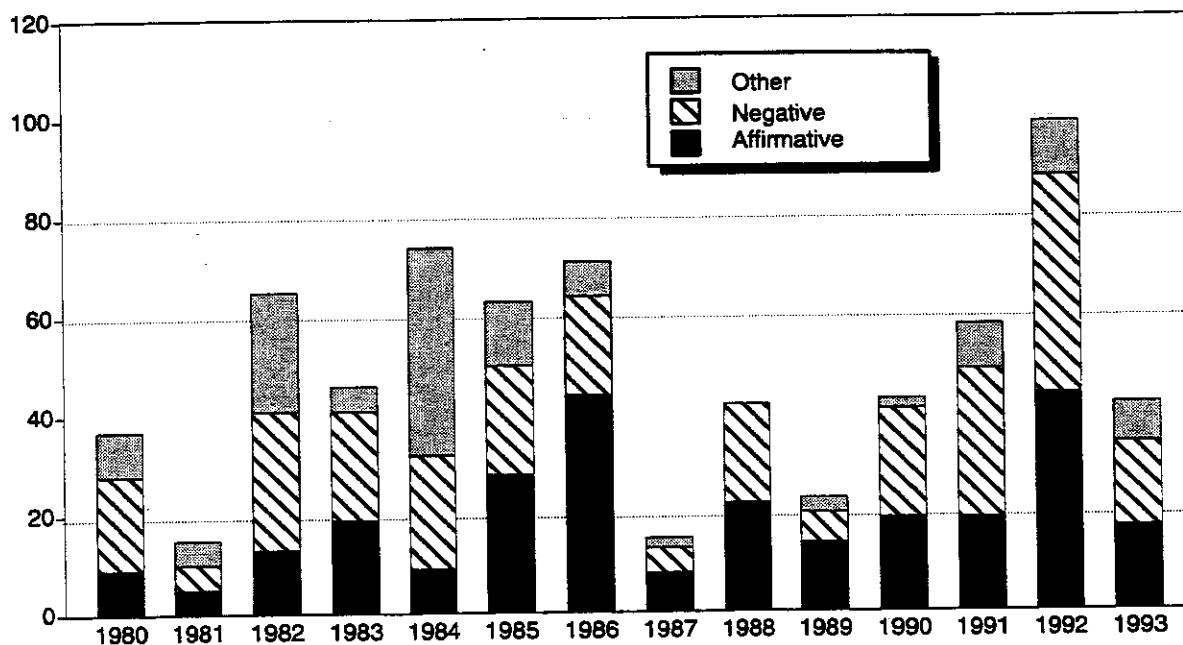
affirmative each year from 1980 through 1984, while affirmative AD cases outnumbered negative ones each year from 1985 through 1989. Recent years have seen a relatively equal ratio of negative and affirmative AD determinations.

Of all AD cases from 1980 through 1993, 262 (or 38.4 percent) involved steel products, while steel product cases accounted for 195 (or 54.5 percent) of all CVD cases requiring injury determination (figures 3-3 and 3-4). Since 1980, the number of nonsteel AD cases has been rising slightly, while nonsteel CVD cases requiring an injury test have declined. In addition, almost 70 percent of the terminated or suspended AD cases from 1980 through 1993 involved steel product cases, primarily in the first half of the 1980s.

Southeast Asian countries comprise four of the top five countries for which AD or CVD petitions were initiated during 1980-93. Japan is the country most often subject to AD petitions, with 79 cases, while Brazil tops the list for CVD cases with 44 (figures 3-5 and 3-6). With the exception of Brazil, CVD cases subject to injury determination have been filed primarily against European steel producers. Together, the top 10 countries accounted for 62 and 57 percent of AD and CVD cases, respectively.

**Figure 3-1**  
**AD case summary, 1980-93**

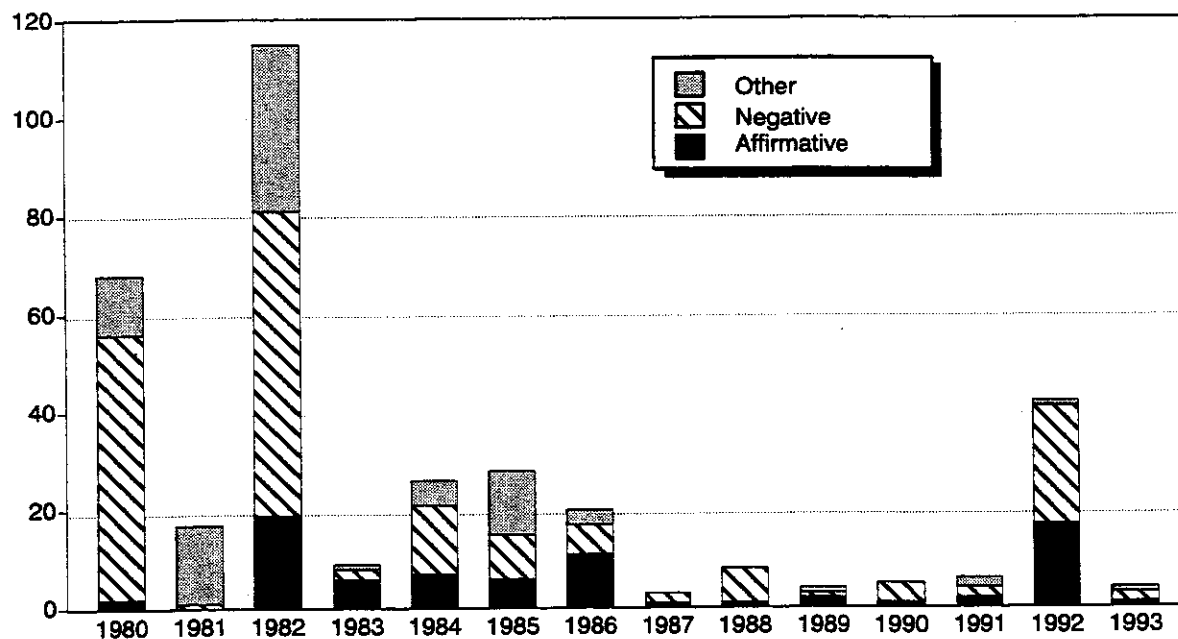
*Number of cases filed*



Source: U.S. International Trade Commission.

**Figure 3-2**  
CVD case summary, 1980-93

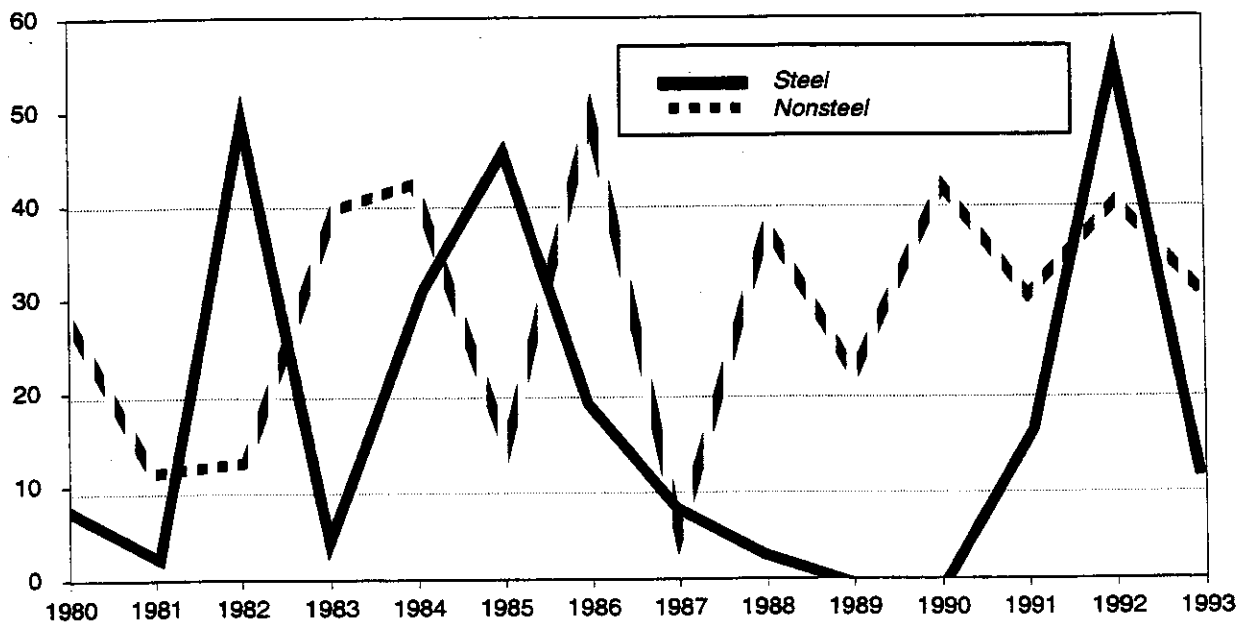
*Number of cases filed*



Source: U.S. International Trade Commission.

**Figure 3-3**  
Steel and nonsteel product AD case summary, 1980-93

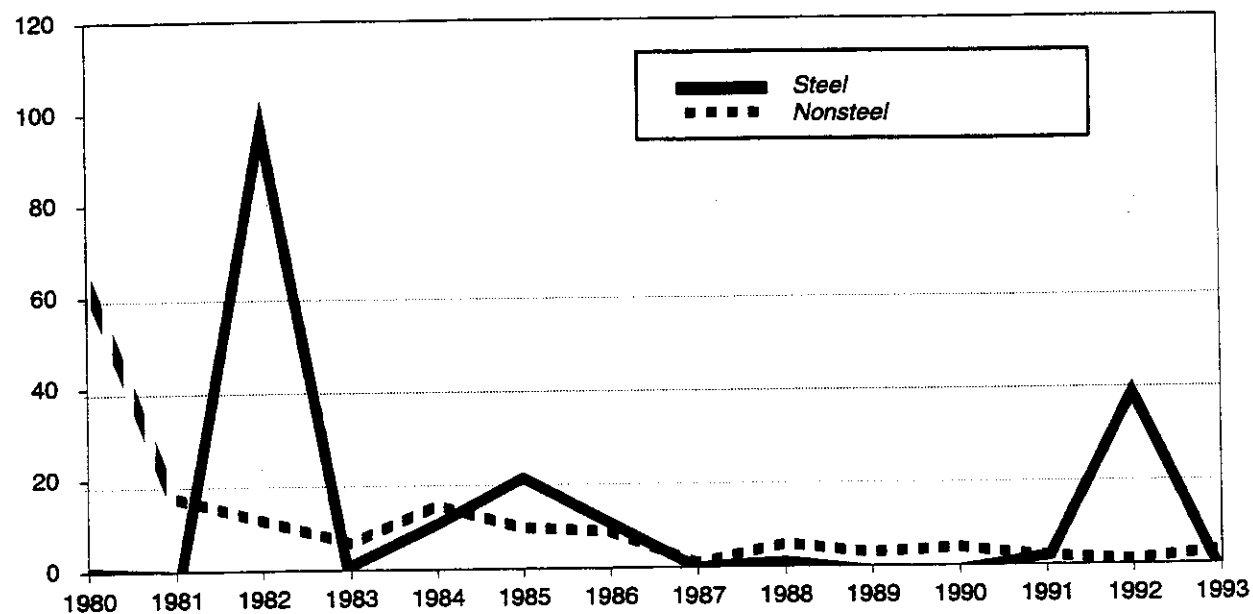
*Number of cases filed*



Source: U.S. International Trade Commission.

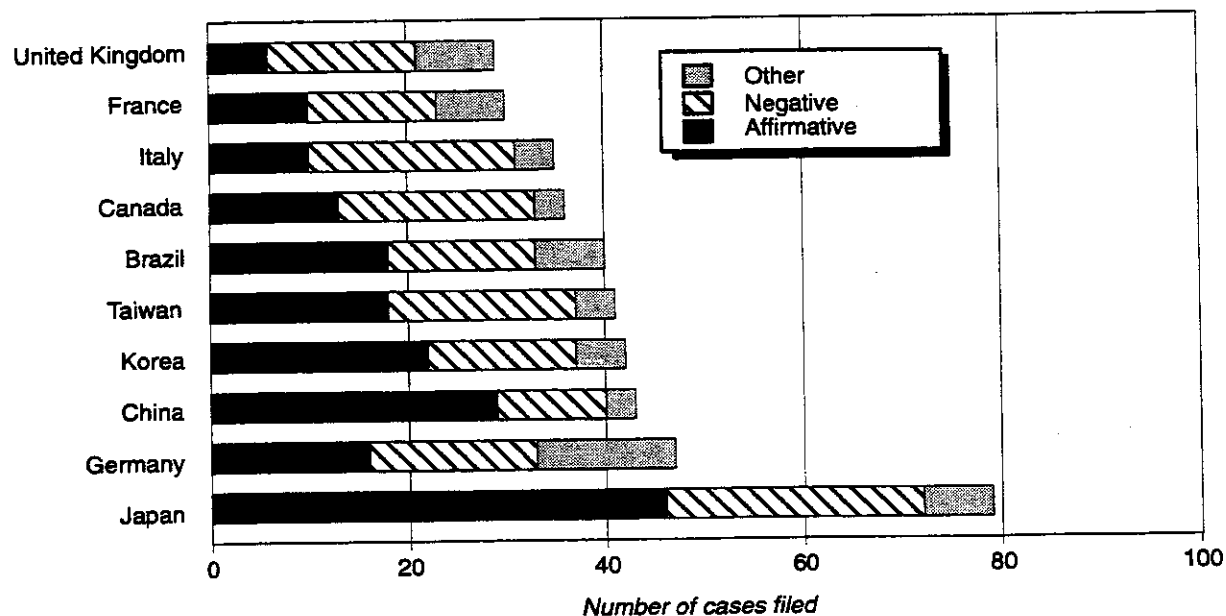
**Figure 3-4**  
Steel and nonsteel product CVD case summary, 1980-93

*Number of cases filed*



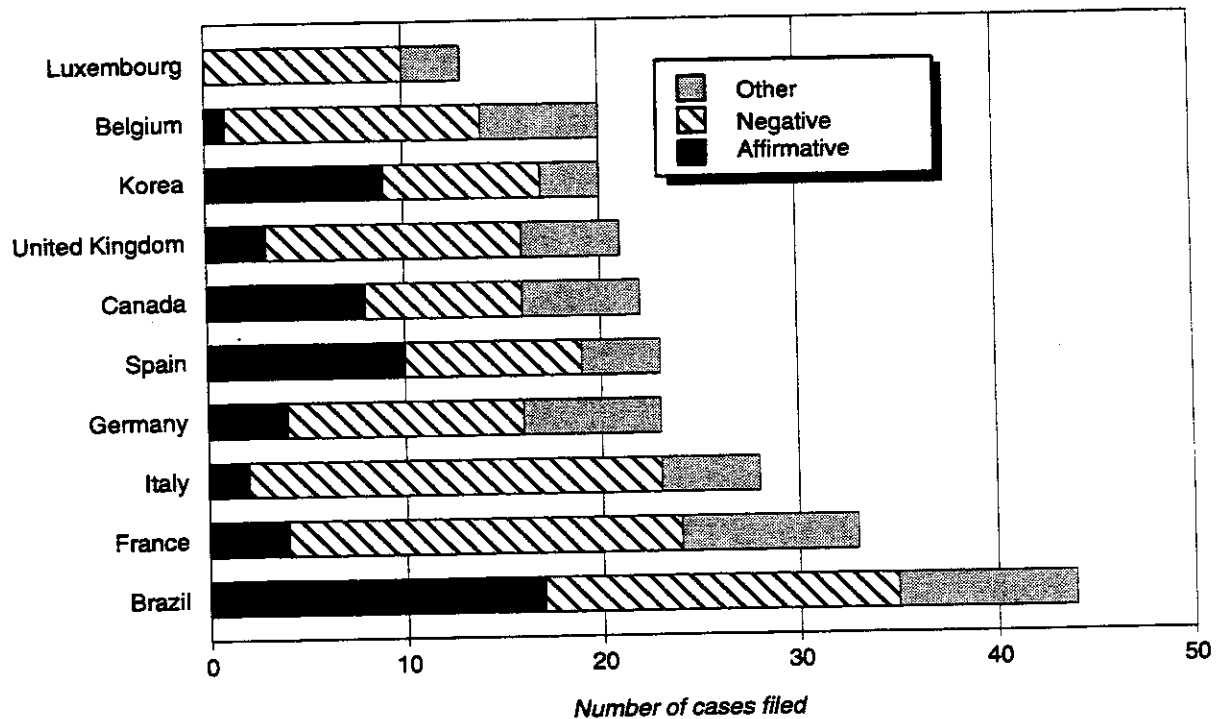
Source: U.S. International Trade Commission.

**Figure 3-5**  
AD case summary, by top 10 countries, 1980-93



Source: U.S. International Trade Commission.

**Figure 3-6**  
CVD case summary, by top 10 countries, 1980-93



Source: U.S. International Trade Commission.

These countries also had a higher percentage of affirmative AD decisions relative to other countries (45 versus 31 percent). In particular, Japan and China had higher percentages of AD cases ruled affirmative than other countries. The top 10 countries with respect to CVD investigations received affirmative determinations in 23 percent of the cases compared with 18 percent for the remaining countries.

## Analyses of Changes in Import Volumes and Unit Values

This section provides a detailed analysis of how import prices and quantities change in response to AD orders and investigations.<sup>8</sup> It includes a set of

<sup>8</sup> Only AD investigations are analyzed in this section. This is done for two reasons. First, the relatively small number of CVD cases in the subject time period provided an insufficient number of data observations to complete these analyses. Second, changes in both import price and quantity are more likely for AD investigations

statistical tests to provide evidence of relationships between characteristics of subject imports and changes in import behavior that result from the imposition of AD orders and investigations.<sup>9</sup> In particular, the impact of AD orders on imports might depend on characteristics of the order, characteristics of the importing country, or characteristics of the product itself. For example, the development status or the export emphasis of a country might influence the reaction of import volume or price to

<sup>8</sup>—Continued

because firms can change their pricing behavior to reduce the margins paid on imports. Import quantity will be impacted by either type of investigation, but CVD margins can generally be reduced only with the removal of government subsidies.

<sup>9</sup> Because of the limited numbers of years covered by the Customs database and the need to have as many observations as possible, the analysis below focuses only on changes in economic variables occurring from one year prior to the observed AD investigations to one year after. This shorter-run analysis differs from, but complements, the analysis in the case studies of chapters 7 through 14, which look at longer periods before and after case initiations.

AD investigations. The size of the final margin imposed in affirmative cases may also play a role in the behavior of importers. On the other hand, uncertainty associated with the review process may be strong enough to make any margin equally effective. The degree to which a product has substitutes and the degree to which it must be processed before it is consumed are also factors that may influence how import volume and unit values change in the face of AD orders.

## Methodology

First, imports are grouped according to whether the final determination in the case affecting them was affirmative or not.<sup>10</sup> Through the use of proxies for the characteristics mentioned above (e.g. per capita income is used to proxy the level of development), imports are grouped for analysis. Categorizations include the income level of the exporting country, the exporting country's rate of aggregate export growth, the magnitude of initial margins applied in affirmative cases, the type of product imported (primary, intermediate, or final goods), and a measure of the degree of product substitutability. Categories are arranged so average import volumes and unit values of these groups are compared three ways: between affirmative and nonaffirmative determinations, between categories arranged by characteristics, and across time (the year before versus the year after the start of an investigation). Comparisons between categories of imports (e.g. affirmative high versus affirmative low income countries) are made only in the year after the initiation of the cases. Difference of means tests are used for these comparisons.<sup>11</sup>

Tables in this section report percentage differences between the average quantities and unit values of two groups at a time. If these differences are statistically significant, the differences between the average means

<sup>10</sup> In the categorizations that follow, the term nonaffirmative is used to describe imports that were subject to investigations but did not receive affirmative determinations. The outcome of these cases may be a negative final determination, a suspension of the investigation, or a case termination before the final decision was reached.

<sup>11</sup> A difference of means test is a standard statistical procedure that can be used to test the probability that the mean (average) of one data sample is larger than the mean of a second sample. Results of the test indicate the magnitude of difference between samples and a measure of the probability with which a difference between means is expected to be observed. The only differences that have meaning in this context are those that have a high probability of being observed.

of two samples are expected to be observed with a high probability. These are noted with asterisks to indicate (one-tailed) statistical significance levels.<sup>12</sup> It is important to emphasize that regardless of the size of the difference between two samples' means, it is uninformative unless the statistical level of confidence is high enough to indicate that the difference is not likely to occur by chance.

## Data

Country-specific imports for tariff lines that were affected by AD orders or investigations were identified from the U.S. Customs (ENB) database described earlier. Because subject products are not defined by HTS code, the analysis is problematic when HTS product codes from a country affected by an AD investigation contain both subject and nonsubject products. To avoid these problems, the sample includes only those HTS product codes in which 80 percent or more of the code is covered by an investigation filed during 1990-92.<sup>13</sup>

The data are organized around the year the case was initiated with Commerce. Imports from cases initiated over the 3-year period are combined so the year the case was filed with Commerce represents a reference time period. Each tariff line is indexed with respect to the filing period. For example, the quantity index for the year preceding the filing is the quantity imported in the year before the filing divided by the import quantity in the year of the filing. A similar ratio is constructed for the year after the initiation of a case. Difference of means tests are conducted on the indices for the years before and after the filing dates.<sup>14</sup>

The measures used to categorize the samples come from a variety of sources. Initial margins were collected from publicly available Commission reports. Commission industry specialists identified whether the products within an HTS line were primary, intermediate, or final goods on the basis of standard economic definitions. The measure used to characterize the substitutability of products is described in the section examining this product characteristic.

<sup>12</sup> These tests measure only the reaction of subsamples relative to one another and should not be used to develop generalizations about these samples relative to nonsubject import categories.

<sup>13</sup> Commission staff determined the degree to which imports of an individual HTS product code were affected.

<sup>14</sup> This approach minimizes the problems associated with the analysis of annual data subject to mid-year filings.

The data used in this section are described below and in appendix 3A by identifying the average margins and shares of trade subject to AD/CVD orders initiated during 1989-93. Imports are grouped according to the characteristics described above and these statistics are calculated for each group. Table 3-3 illustrates the average AD/CVD margins and subject import shares for each country that is included in the sample.

The results illustrated in appendix 3A show that countries with high rates of aggregate export growth and those in the highest per capita income category are subject to the highest AD margins. High export growth countries also have the largest share of trade subject to AD orders initiated during 1989-93.

Imported intermediate goods have higher average margins than primary or final goods and, similarly, imports with a low degree of substitutability face AD margins substantially higher than more highly substitutable products.

### *Size of the Initial Final Margin*

The first analysis addresses the connection between import behavior and the size of the initial final margins. One expects higher final margins to reduce import volume. However, because orders are subject to administrative review and margins can be adjusted—higher or lower—at a later period, the existence of an order may be sufficient to alter import

**Table 3-3**  
**Average initial margins and import shares subject to AD/CVD orders initiated during 1989-93, by sample country**

Country	(Percent)			
	AD		CVD	
	Weighted-average margin <sup>1</sup>	Share of country imports subject to AD <sup>2</sup>	Weighted average margin <sup>1</sup>	Share of country imports subject to CVD <sup>2</sup>
Argentina .....	8.65	0.55	15.00	10.39
Australia .....	24.96	0.95	(3)	(3)
Belgium .....	9.71	1.30	(3)	(3)
Brazil .....	70.89	0.52	0.08	0.02
Canada .....	32.01	0.16	21.61	(4)
China .....	27.31	1.83	(3)	(3)
Finland .....	32.25	0.82	(3)	(3)
France .....	71.45	0.40	23.14	0.03
Germany, West .....	16.38	1.03	16.83	0.08
Hong Kong .....	5.13	2.51	(3)	(3)
India .....	162.44	0.06	(5)	(5)
Italy .....	(5)	(5)	(5)	(5)
Japan .....	96.99	2.31	6.32	0.02
Korea, South .....	3.93	7.45	(3)	(3)
Malaysia .....	7.58	0.02	(4)	0.02
Mexico .....	44.62	0.50	(3)	(3)
Netherlands .....	105.75	1.58	(3)	(3)
New Zealand .....	98.60	1.40	(3)	(3)
Norway .....	(5)	(5)	0.23	0.35
Sweden .....	24.28	0.45	(3)	(3)
Taiwan .....	14.90	3.61	(3)	(3)
Thailand .....	39.00	0.28	2.16	0.33
United Kingdom .....	20.22	0.39	12.38	0.31
Venezuela .....	18.25	0.38	20.92	0.32

<sup>1</sup> Margins are weighted by the share of total subject imports.

<sup>2</sup> Share of each country's total U.S. imports that are subject to AD or CVD orders initiated between 1989-93.

<sup>3</sup> Indicates that either no affirmative cases exist against this country or there is no record in the Commerce data identifying imports that are subject to orders initiated in the sample period.

<sup>4</sup> Less than .005 percent.

<sup>5</sup> Import categories were identified in which there were outstanding orders, but import data indicate no 1989 imports in those categories.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

prices and significantly curtail imports.<sup>15</sup> Tariff lines subject to affirmative determinations are broken into "high," "medium," and "low-margin" groups, corresponding, respectively, to margins exceeding 50 percent, between 50 and 20 percent, and less than 20 percent. A final sample includes the identified tariff lines for which investigations were initiated, but the final outcome was not affirmative.

The relationship between the magnitude of the remedy and the import response is captured in comparisons of each group's average import volume and unit values over time. Data for the year preceding the initiation of a case are compared with data for the year after the investigation begins. To examine the importance of uncertainty related to the review process, comparisons are made across groups of imports in the period after the investigations were initiated. Average unit values and quantities are compared across the groups with different sized margins and these individual groups are compared to the imports that were not subject to affirmative determinations to see if the changes in volume and price are associated with the size of the margin.

Table 3-4 shows the results comparing the quantity and unit value indices before and after investigations were initiated. Products subject to remedy exceeding 50 percent show a sharp and significant reduction in import quantity (-73.0 percent) and an increase in unit values (32.7 percent),<sup>16</sup>

<sup>15</sup> See Boltuck, Richard, and Robert Litan eds., *Down in the Dumps: Administration of the Unfair Trade Laws* (Washington DC: The Brookings Institution, 1991), and Congressional Budget Office, *How the GATT Affects U.S. Antidumping and Countervailing-Duty Policy* (Washington DC: Congressional Budget Office, 1994), chap. 4 for discussions of this behavior.

<sup>16</sup> Although unit values are not true prices, they represent an approximation of prices, and the terms will be used interchangeably in the following discussion.

suggesting that orders with high remedies were successful in raising subject import prices and reducing import volume. This unit value increase captures the price effect exclusive of tariffs or AD duties.

The medium-margin group showed no statistically significant changes in quantities and unit values. The low-margin group had a significant 9.7-percent price reduction over this period, but no significant quantity decrease, suggesting that subject import prices continued to decline despite the affirmative decisions in these investigations. Imports that were not subject to affirmative determinations had no significant change in volume or price.

Table 3-5 illustrates cross-group comparisons of the average indices for the period after the cases were initiated.<sup>17</sup> The data in the table correspond to the percent difference between the first and second group identified in the left-hand column. For example, the first row indicates that the average quantity index of the group of products with a high margin is 69.9 percent lower than the average quantity index of the products with a medium margin, and shows that the average unit value index of high margin products is 25.5 percent higher than medium-margin group. In fact, each comparison involving imports with high margins shows lower import volume and significantly higher average unit value changes relative to the other groups. The quantity index for imports subject to the highest remedies are 63.0 and 71.7 percent lower than the index of affirmative low-margin and nonaffirmative imports, respectively, and unit values are 35.3 and 29.0 percent higher, respectively. However, when the unit values and quantities are compared between the affirmative medium-margin group and the low and nonaffirmative categories, the differences are generally not significant.

<sup>17</sup> Cross-category comparisons in the year prior to the investigations yielded few statistical differences.

**Table 3-4**  
**Percent changes in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by initial margin**

(Percent)		
Import category	Quantity	Unit value
High margin	-73.0*	32.7*
Medium margin	-21.5	1.8
Low margin	-16.4	-9.7**
Nonaffirmative determination	-3.2	2.9

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

**Table 3-5**  
**Postfiling comparisons across imports that are grouped by the size of the initial margin**  
(Percent)

Comparison	Quantity	Unit value
High margin vs. medium margin .....	-69.9*	25.5**
High margin vs. low margin .....	-63.0*	35.3*
High margin vs. nonaffirmative .....	-71.7*	29.0*
Medium margin vs. low margin .....	22.8	8.8**
Medium margin vs. nonaffirmative .....	-5.8	3.7
Low margin vs. nonaffirmative .....	-23.3*	-4.7**

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

The strong results associated with the high margin group combined with the ambiguous results for the medium- and low-margin groups suggest that high margins have disproportionately larger effects on quantities and unit values than medium or low margins. If the main effect of affirmative orders is due to uncertainty about future margins, one would expect there to be no significant differences among the high, medium, and low-margin groups in table 3-5. However, the magnitude of these changes is strongly related to the size of the initial margin, lending support to the notion that the uncertainty of the review process does not outweigh the size of the margin in affecting import behavior.<sup>18</sup>

### *Per Capita Income of the Exporting Country*

The first of two analyses relating country-specific characteristics to changes in import behavior is described in this section. Imports from the different subject countries are grouped into "high" and "low" per capita income categories.<sup>19</sup> Table 3-6 shows the volume and price changes between the year prior to and year following the initiation of AD investigations. Like the comparisons in table 3-4, the results

<sup>18</sup> It is also important to emphasize that this analysis does not imply that low and medium margins do not have an effect on import volume or unit values. The difference of means comparisons are across groups of products that have all been subject to investigations. It is possible that all categories, including the tariff lines with negative determinations, change in ways that are significantly different from unaffected HTS lines.

<sup>19</sup> The per capita income levels in 1989 are used for this division. See footnote 3 in appendix 3A for a list of countries in each group. Groupings are applied separately to the affirmative and nonaffirmative tariff lines.

illustrate percentage changes in quantity and unit value for each import category.

Only the changes in import volumes from the low-income countries are statistically significant (table 3-6). The volume of imports from low-income countries dropped by 47.0 for affirmative and 56.4 percent for nonaffirmative investigations. There is no appreciable difference in unit values, so this volume reduction is probably only partially due to higher prices. Instead, importers from low-income countries appear to curtail imports into the U.S. market in response to AD investigations regardless of the final determination.

The next comparison looks at how the average import quantities and unit values differ in the year after the AD investigations are initiated. As in table 3-5, table 3-7 represents the percentage difference between the average means of the first and second samples indicated in the left-hand column. Relative to the imports from the low-income countries, imports from high income countries that are subject to affirmative determinations have a 46.2 percent higher quantity index and an 18.0 percent higher unit value index in the year subsequent to the filing (table 3-7). Even for nonaffirmative determinations, high-income countries had an average import volume index more than twice that of the low income countries.

### *Growth Rate of Aggregate Source-country Exports*

In this section, import data were divided into groups based on the rate of aggregate export growth by the exporting country between 1979 and 1989. Imports were classified into either a "high" or "low" category.<sup>20</sup> AD investigations and orders are likely to

<sup>20</sup> The high and low income groups are identified in footnote 4 in appendix 3A, with the exception of China which is in the low income group in this analysis.



**Table 3-6**  
**Percentage changes in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, grouped by per capita income**

(Percent)

Import category	Quantity	Unit value
Affirmative high income .....	-20.6	6.3
Affirmative low income .....	-47.0*	-2.0
Nonaffirmative high income .....	-10.6	3.9
Nonaffirmative low income .....	-56.4*	2.8

\* 95-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

**Table 3-7**  
**Postfiling comparisons between imports that are grouped by per capita income**

(Percent)

Comparison	Quantity	Unit value
Affirmative high vs. affirmative low .....	46.2**	18.0*
Affirmative high vs. nonaffirmative high .....	-5.5	11.2**
Affirmative low vs. nonaffirmative low .....	39.2**	-8.3**
Nonaffirmative high vs. nonaffirmative low .....	115.7*	-1.8

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

generate different reactions by trading partners depending on the emphasis producers place on export markets. Export growth may signal productivity gains, a policy shift towards an international orientation, or trade practices that include subsidies or dumping. Without assessing the cause of the export growth, table 3-8 shows that import quantities and unit values change significantly after affirmative AD orders if they originate from countries with high rates of export growth. In contrast, imports subject to nonaffirmative investigations from these countries show no significant changes. The changes in import quantities and unit values from low export growth countries are generally insignificant for the affirmative and nonaffirmative groups.

The relative impact of affirmative AD orders on fast growing exporters is most easily seen in the cross-group comparisons reported in table 3-9. In the year following the initiation of investigations, the quantity index of imports from countries with high rates of export growth was 59.2 percent lower than from countries with lower export growth rates. The average unit value index of the high-growth group is 13 percent higher than the low-growth group. These results indicate that relative to low export growth countries, high export growth countries respond more strongly to affirmative determinations.

## Analysis By Product Type

The characteristics of a product may also affect the response of imports to AD investigations and orders. In this section, imports are divided into groups on the basis of the type of product imported. Three standard categories were used for this division: primary, intermediate, and final goods.<sup>21</sup> However, there were an insufficient number of primary product observations to be included in the means tests. The product categorizations are applied separately to the affirmative and nonaffirmative groups.

The market channels through which goods flow may influence quantity and price changes that occur near case initiations. In particular, final goods are more likely to be sold with observable posted prices than intermediate or primary products that more often use firm-to-firm exchange under negotiated contracts. This suggests that final goods should generate sharper unit value increases relative to intermediate or primary products. The data analysis shows that prices for final goods are more responsive to affirmative orders than are prices for intermediate goods. The

<sup>21</sup> These are described further in footnote 5 in appendix 3A.

**Table 3-8**  
**Percentage change in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by export growth rates**

(Percent)		
Import category	Quantity	Unit value
Affirmative high export growth .....	-49.2*	10.2**
Affirmative low export growth .....	-2.7	-5.4
Nonaffirmative high export growth .....	-4.8	2.8
Nonaffirmative low export growth .....	34.3	7.1*

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

**Table 3-9**  
**Postfiling comparisons across imports that are grouped by aggregate country export growth**

(Percent)		
Comparison	Quantity	Unit value
Affirmative high vs. affirmative low .....	-59.2*	13.3**
Affirmative high vs. nonaffirmative high .....	-40.0*	9.2**
Affirmative low vs. nonaffirmative low .....	4.3	0.0
Nonaffirmative high vs. nonaffirmative low .....	-21.1**	3.8

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

average unit value index of final goods that are subject to affirmative determinations increased by 65.0 percent from the year before to the year after the cases were initiated (table 3-10). These cases also saw a 68.3-percent drop in import quantity. The results are strongly significant.

Intermediate goods subject to affirmative determinations showed a significant 23.1-percent reduction in import volume but without a significant change in price. Nonaffirmative determinations generated on average a 19.5-percent drop in import volume and a 4.8-percent increase in price. The strong quantity reductions are consistent with the imposition of AD remedies and the lack of sharp differences in unit values are consistent with the expectation of a greater price effect for final goods.

Table 3-11 shows the comparison between groups of imports that are classified by product type for the year following the initiation of the AD cases. The only consistent changes occur with respect to the differences involving affirmative final goods. These products had an average unit value index that was 83.0 percent higher and a quantity index 75.8 percent lower than the group of final good imports with nonaffirmative determinations. When compared with the intermediate imports subject to affirmative final

determinations, final goods had an average unit value index that was 58.9 percent higher and a quantity index 63.1 percent lower than the intermediate products.

A comparison of final and intermediate good imports that were not subject to affirmative determinations yielded a result consistent with the hypothesis of greater price effects on final goods. Although there was no (statistically) significant difference in import volume, the average unit value index of final goods was 14.7 percent below the unit value of intermediate products. This implies that even in the case of investigations that were not affirmative, prices of final goods are more responsive than prices of intermediate products.

## ***Analysis by Product Substitutability***

Finally, this section examines the relationship between changes in import volume and price and the degree to which a product can be distinguished in an economic sense from other goods in the market. The ability to adjust to the price or availability of an individual product depends on the closeness and number of substitute goods. Fewer similar products

**Table 3-10**

**Percentage change in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by good type**

(Percent)

Import category	Quantity	Unit value
Affirmative final goods .....	-68.3*	65.0*
Affirmative intermediate goods .....	-23.1**	- 2.7
Nonaffirmative final goods .....	12.1	- 7.9
Nonaffirmative intermediate goods .....	-19.5**	4.8**

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

**Table 3-11**

**Percentage differences in unit value and import volume when imports are grouped according to product type**

(Percent)

Comparison	Quantity	Unit value
Affirmative final vs. nonaffirmative final .....	-75.8*	83.0*
Affirmative final vs. affirmative inter. <sup>1</sup> .....	-63.1*	58.9*
Affirmative inter. vs. nonaffirmative inter. ....	4.0	-1.8
Nonaffirmative final vs. Nonaffirmative inter. ....	58.6	-14.7*

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

<sup>1</sup> Inter. is used as an abbreviation for intermediate.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

within an industry limits consumers' ability to adjust to changes in the availability of one. More substitutes means that a given price change will generate larger volume swings as consumers can more readily seek alternative products. As a consequence, producers of highly substitutable goods are less able to raise price without observing a decrease in sales volume. Hence, the more substitutable a product, the more likely are AD investigations to lead to quantity shifts rather than unit value swings.

Imports are classified into "high" and "low" substitution categories.<sup>22</sup> Comparing these groups across time (table 3-12), the most striking result is that only the products having a high degree of substitution show significant changes. Affirmative subject imports with a high degree of substitutability show a 37.4-percent quantity reduction between periods. This drop is associated with no significant

change in unit value, which is consistent with the description relating changes in import volume and price and the degree of product substitutability.

Comparisons across import groups in the period after the initiation of the cases are also generally consistent with the hypothesis relating changes in imports to the degree of substitutability. Table 3-13 shows that in the period after the initiation of AD cases, highly substitutable products have a 14.2 percent lower unit value index relative to the less substitutable group, and a 6.4 percent lower unit value index when compared to the highly substitutable group subject to nonaffirmative investigations. Producers of more highly substitutable products do not raise import prices as readily as with the less substitutable group. The average quantity index of less substitutable imports that are subject to affirmative investigations decreased 32.1 percent more than nonaffirmative imports. Similarly, the more substitutable group is more strongly affected by nonaffirmative investigations than the less substitutable group.

<sup>22</sup> Imports are ranked according to the median measure of substitutability for the set of subject HTS codes. This measure is described in footnote 6 in appendix 3A. Affirmative and nonaffirmative imports are divided according to the same median value.

**Table 3-12**

**Percentage change in import volume and unit value comparing the year prior and the year following the initiation of AD investigations, by product substitutability**

(Percent)

Product category	Quantity	Unit value
Affirmative high substitutability .....	-37.4*	0.1
Affirmative low substitutability .....	-15.2	5.3
Nonaffirmative high substitutability .....	-26.2*	7.8*
Nonaffirmative low substitutability .....	6.5	-2.8

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

**Table 3-13**

**Percentage differences in unit value and import volume when imports are grouped according to product substitutability**

(Percent)

Comparison	Quantity	Unit value
Affirmative high vs. affirmative low .....	16.9	-14.2*
Affirmative high vs. nonaffirmative high .....	15.6	-6.4**
Affirmative low vs. nonaffirmative low .....	-32.1**	15.4*
Nonaffirmative high vs. nonaffirmative low .....	-31.3*	5.8

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

In general, the evidence supports the notion that imports from the more substitutable group show a larger change in import quantity and less change in import prices in response to AD orders. The one strong exception is the lack of a quantity difference between the high and low categories that are subject to affirmative orders.

## Analysis of the Incidence of Trade Diversion

Antidumping orders raise the price of imports from subject countries. Total U.S. imports of the product need not fall if subject country imports are replaced by imports from other sources.<sup>23</sup> This is called trade diversion. Trade diversion in response to AD orders filed during 1989-93 is examined by comparing imports at the 10-digit HTS level that were subject to AD investigations with those that were not.

<sup>23</sup> The volume of subject imports is expected to fall, the average unit value for this group should increase, and the imports from nonsubject countries should increase.

The procedure used to make these comparisons is the difference of means test.

Four categories of imports are identified for comparison in this section:

- 1) imports under affirmative AD orders (affirmative imports);
- 2) imports that were investigated, but did not receive an affirmative determination (nonaffirmative imports);
- 3) nonsubject imports that correspond to the affirmative imports; and,
- 4) nonsubject imports that correspond to the nonaffirmative imports.

The imports in these groups are compared before and after the filing of the case. When AD case determinations are affirmative, there is strong evidence supporting the existence of trade diversion. Imports subject to affirmative AD orders dropped 31.9 percent, while nonsubject imports of the same products rose by 24.0 percent (table 3-14). Both changes are statistically significant, suggesting that a significant portion of the reduction in trade that occurs

**Table 3-14**  
**Comparisons across time for AD subject and nonsubject imports**

(Percent)

Import category	Quantity	Unit value
Affirmative subject .....	-31.9*	4.6
Affirmative nonsubject .....	24.0**	-4.6
Nonaffirmative subject .....	-24.0*	3.8**
Nonaffirmative nonsubject .....	19.4	-2.9

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

as a result of affirmative AD orders is replaced by imports from nonsubject sources. A comparison of the subject and nonsubject products for nonaffirmative final determinations lends additional (weak) support to the notion of trade diversion. The volume of subject imports fell by a significant 24.0 percent.

The differences in import volume and unit values between groups is a more meaningful measure of the change in import volume or unit values than individual group comparisons across time because different groups of the same products are compared in the same time period. This is done in the period following the initiation of AD cases.

In this set of comparisons, one would again expect the most significant differences to occur between subject and nonsubject imports under affirmative AD determinations. The average quantity index of subject products should be less than the index of nonsubject products, and the average unit value index of the former should be larger. One might expect the same differences between subject and nonsubject imports that were investigated but had nonaffirmative final determinations if nonaffirmative cases resulted in voluntary quantity controls or if AD cases had a

deterrent effect on importers as a result of the costs of the investigation process.

The cross-group comparisons yield few significant differences between the groups (table 3-15). However, the results that are most significant are also the ones that were strongly expected. The average quantity index of imports that were subject to affirmative final determinations was 37.2 percent lower than the index of nonsubject imports. In addition, the average unit value index of subject products was 9.7 percent higher than the same nonsubject products. A similar set of results appears in the case of products that received nonaffirmative final determinations. The average change in import quantity of goods that were subject to investigation was 26.4 percent lower than the nonsubject products.

Overall, evidence of trade diversion is observed in the comparison across time and between imports that are subject and not subject to outstanding affirmative AD orders. In addition, trade diversion is also suggested in the case of imports that were subject to investigation but received nonaffirmative final determinations. This is important because case investigations may be costly to importers, but their effects should not be as strong as with the affirmative orders.

**Table 3-15**  
**Comparison of changes in subject and nonsubject imports**

(Percent)

Comparison	Quantity	Unit value
Affirmative subject vs. affirmative nonsubject .....	-37.2*	9.7*
Affirmative subject vs. nonaffirmative subject .....	-14.7	5.6
Nonaffirmative subject vs. nonaffirmative nonsubject .....	-26.4*	5.9
Affirmative nonsubject vs. nonaffirmative nonsubject .....	0.0	0.9

\* 95-percent level of confidence.

\*\* 90-percent level of confidence.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.



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## Appendix 3A

# An Overview of Affirmative 1989-93 Cases

The volume of trade, the magnitude of relief granted, and the products covered by a case will affect how trade remedies impact the U.S. economy and its trading partners. This appendix identifies the volume of trade and the kinds of products affected by AD/CVD cases.<sup>1</sup>

In general, imports from high-income countries are subject to higher average AD remedies (81.02 percent) than imports from the lower income countries (10.85 percent), but a lower percentage of imports<sup>2</sup> are covered (1.1 percent versus 2.6 percent)(table 3A-1).<sup>3</sup> China is separated as the sole non-market country, but the AD margins and subject shares are consistent with those of the low income countries.

Countries with the highest rates of export growth tend to have higher AD margins placed on their subject imports relative to low export-growth countries. The share of imports subject to affirmative AD determinations is also highest for the fast-growing exporters. However, countries with the lowest rates of aggregate export growth have the highest initial margins and the largest share of imports into the U.S. subject to CVD orders.<sup>4</sup>

<sup>1</sup> Imports are categorized by per capita income, aggregate export growth, type of product imported, and substitutability. Initial margins were collected from publicly available Commission reports.

<sup>2</sup> The import lines for affirmative cases initiated during 1989-93 are matched to 1989 data to calculate the share of total 1989 U.S. imports that are subject.

<sup>3</sup> Per capita income levels were obtained from the World Bank publication, *World Tables*. Data for Taiwan were obtained from *Financial Statistics* published by the Central Bank of China (Taiwan). The high income group includes Australia, Belgium, Canada, Finland, France, Germany, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden and the United Kingdom. The low income group consists of Argentina, Brazil, Hong Kong, India, South Korea, Malaysia, Mexico, Taiwan, Thailand and Venezuela. The medium income level was initially used to separate these countries; however, Taiwan was placed in the low income group because its per capita income was closer to the upper tier of that group than it was to the lower tier of the high income group.

<sup>4</sup> Export growth rates were calculated from aggregate 1979 to 1989 export data from *World Tables*. Data for

Distinguishing imports by primary, intermediate and final good types indicates that intermediate goods generally face the highest AD margins, followed closely by final goods.<sup>5</sup> In contrast, CVD cases place higher remedies on primary products.

The degree to which an import has substitutes may have a bearing on the scope or injury determination of an investigation.<sup>6</sup> The sample of subject HTS codes was split into high, medium, and low levels of substitution.<sup>7</sup> Average margins and the share of subject imports are calculated to identify differences between the groups, shown in table 3A-3.

#### <sup>4</sup>—Continued

Taiwan were obtained from *Financial Statistics* published by the Central Bank of China (Taiwan). The sample was split into groups of countries with cumulative export growth over the period 1979-89, respectively, of less than 81 percent, between 81 and 136 percent, and greater than 136 percent.

<sup>5</sup> Commission staff identified whether products within an HTS line were primary, intermediate, or final goods based on standard definitions. Primary products are raw materials which require substantial additional processing before they can be consumed in a final form or used to produce other goods. Intermediate products are semi-processed goods used as inputs in other production processes and final goods are products requiring little additional processing before being consumed by individuals, businesses or governments. The values of total U.S. imports that are primary, intermediate, and final goods are not available, so subject imports are measured relative to the value of total imports subject to each type of order. For example, 60.8 percent of subject AD imports were intermediate products.

<sup>6</sup> Substitutability refers to the degree to which a product can be distinguished from other goods in the same industry. The measure of product substitution, derived from the U.S. tariff schedule, is the number of 10-digit tariff categories within the respective 4-digit HTS item. More 10-digit categories detailing the 4-digit item is assumed to indicate a higher degrees of product substitution.

<sup>7</sup> Percentiles were calculated and were adjusted slightly to take advantage of the fact that when the tariff lines were ranked by the number of HTS categories, distinct jumps occurred near the 33rd and 66th percentiles.

**Table 3A-1**  
**Trade-weighted initial margin, by country classification**

(Percent)

Country groups	AD		CVD	
	Weighted-average margins <sup>1</sup>	Share of total imports <sup>2</sup>	Weighted-average margins <sup>1</sup>	Share of total imports <sup>2</sup>
High income .....	81.02	1.062	11.86	0.042
Low income .....	10.85	2.574	14.50	0.625
China .....	27.31	1.830	( <sup>3</sup> )	( <sup>3</sup> )
High export growth .....	47.10	2.690	4.43	.033
Medium export growth .....	29.92	.329	11.84	.021
Low export growth .....	46.51	.623	15.09	.573

<sup>1</sup> Margins weighted by the share of total subject imports.

<sup>2</sup> Share of each country group's total U.S. imports subject to AD or CVD orders initiated between 1989-93.

<sup>3</sup> Not applicable.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics of the U.S. Department of Commerce.

**Table 3A-2**  
**Trade-weighted initial margin, by product type**

(Percent)

	Average margin <sup>1</sup>	Share of subject <sup>2</sup>
Antidumping orders:		
Primary products .....	23.44	0.554
Intermediate products .....	47.84	60.845
Final products .....	42.44	38.601
Countervailing orders:		
Primary products .....	22.06	6.927
Intermediate products .....	13.34	89.684
Final products .....	.32	3.389

<sup>1</sup> Margins weighted by the share of 1989 imports subject to outstanding AD or CVD orders initiated between 1989-1993.

<sup>2</sup> Share of each group's total 1989 U.S. imports subject to AD or CVD orders initiated between 1989-1993.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.

**Table 3A-3**  
**Trade-weighted initial margins and share of subject imports, by substitutability**

(Percent)

	Average margin <sup>1</sup>	Share of subject <sup>2</sup>
Antidumping orders:		
Low substitutability .....	60.35	44.50
Medium substitutability .....	25.67	6.92
High substitutability .....	34.97	48.58
Countervailing orders:		
Low substitutability .....	14.87	38.59
Medium substitutability .....	14.02	54.79
High substitutability .....	1.68	6.62

<sup>1</sup> Margins weighted by the share of imports subject to outstanding AD or CVD orders.

<sup>2</sup> Share of each group's total U.S. imports relative to the total value of imports subject to AD or CVD orders.

Source: Commission staff calculations based on data from the U.S. Customs Service and official statistics from the U.S. Department of Commerce.



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## CHAPTER 4

# The Economy-Wide Effects of Outstanding Antidumping and Countervailing Duty Orders

This chapter examines the economy-wide effects of outstanding AD/CVD orders on the U.S. economy in 1991.<sup>1</sup> "Outstanding" orders include all affirmative AD/CVD determinations prior to 1992, that had not been revoked, terminated, or suspended. In 1991, hundreds of active AD/CVD orders affected \$9.0 billion in imports from over 1,300 10-digit HTS product categories from nearly 50 countries. This represents 1.8 percent of total U.S. merchandise imports, which was nearly \$491 billion in 1991. The modeling technique used in this chapter estimates the *collective* effect of all of these orders on the U.S. economy in 1991. Some of the orders in place are recent (e.g., Portland Cement From Japan, 731-TA-461, 1990), while other orders have been in place for decades (e.g., Large Power Transformers from France, Italy, Japan, Switzerland, and the United Kingdom, AA1921-86 through 90, 1971). Hence, regardless of when an order went into effect, if it was in place in 1991, it is represented in the estimation.<sup>2</sup>

The estimated effect of removing outstanding AD/CVD orders is a net economic welfare gain to the U.S. economy of \$1.59 billion in 1991. In other words, the presence of AD/CVD orders represents a *collective* net cost to the U.S. economy of \$1.59 billion in 1991. This is the equivalent to 0.03 percent of 1991 U.S. Gross Domestic Product (\$5,724.8

billion). As a comparison with other significant U.S. import restraints (in 1991 dollars), the AD/CVD orders collectively rank behind the Multifiber Arrangement restrictions (\$15.8 billion) and the Jones Act maritime restrictions (\$3.1 billion).<sup>3</sup> It is important to note that this is a static estimate for the year 1991 and it does not take into account the cumulative effects of existing orders, which may have been in place for many years prior to 1992. In addition, petitions may have been filed and withdrawn (e.g., the steel cases of the early 1980s) or AD/CVD activity may have been started and discontinued/completed before 1991 (e.g., affirmative determinations that were revoked, terminated or suspended). The impact of these actions are not captured by the modeling technique used in this chapter.

As highlighted in the economic literature review in chapter 5, a number of recent studies have used computable partial equilibrium (CPE) models to estimate the economic effects of AD/CVD orders.<sup>4</sup> These simulation methods are best for analyzing the economic effects of dumping, subsidization, and their remedies for an individual sector or industry. As noted in chapter 1 and further described in chapter 5, the CPE methodology is used in the case study chapters. However, analysis of the economic effects of numerous AD/CVD orders across a variety of industries within a consistent framework requires the use of a computable general equilibrium (CGE)

<sup>1</sup> In the request letter (see app. A), the USTR asked the Commission to "[take] into account the potential conflicts that would arise from an investigation of any order or remedy that is currently before an appellate body or may result from currently pending proceedings ..." There are a number of 1992 cases that are currently in litigation. Thus, 1991 was chosen for the analysis in this chapter.

<sup>2</sup> See the Data section below for an accounting of the AD/CVD orders that are included in the estimation. Data constraints, especially for orders that resulted in a cessation of imports, precluded the inclusion of every outstanding order.

<sup>3</sup> See U.S. International Trade Commission (USITC), *The Economic Effects of Significant U.S. Import Restraints*, USITC publication No. 2699, Nov. 1993.

<sup>4</sup> Among others, see Morris E. Morkre and Kenneth H. Kelly, *Effects of Unfair Imports on Domestic Industries: U.S. Antidumping and Countervailing Duty Cases, 1980-1988*, FTC Bureau of Economics Staff Report, 1994, and Tracy Murray and Donald J. Rousslang, "A Method for Estimating Injury Caused by Unfair Trade Practices," *International Review of Law and Economics*, vol. 9 (1989), pp. 149-164.

model.<sup>5</sup> Despite the extensive work analyzing the economic effects of individual AD/CVD orders with CPE models and the considerable work modeling commercial policies in a CGE framework, this chapter is the first CGE analysis of the economic effects of outstanding AD/CVD orders on the U.S. economy to date.<sup>6</sup>

This lack of CGE analysis on AD/CVD orders is not surprising for a number of reasons. First, AD/CVD orders are very targeted actions, often affecting only a few 10-digit HTS product categories. Most CGE simulation models specify industrial sectors at very aggregated levels. However, the Commission CGE model, with the potential to model hundreds of separate production sectors, can simultaneously focus on the economic effects of narrowly targeted AD/CVD orders in certain sectors (as with a CPE analysis), while at the same time estimating the combined economy-wide effects of all outstanding AD/CVD orders, which a CPE analysis cannot do within a consistent framework.

Another barrier to easy application of a CGE model to estimate the effects of outstanding AD/CVD orders is the extensive data requirements. These requirements entail gathering data on AD/CVD duties collected (in addition to other information) on hundreds of AD/CVD orders affecting over 1,000 10-digit HTS product categories in the year of analysis. Through the use of the Customs ENB database described in chapter 3, this task became manageable.

<sup>5</sup> There is considerable literature analyzing commercial policies within a CGE framework. For surveys of this literature, see John Shoven and John Whalley, "Applied General-Equilibrium Models of Taxation and International Trade: An Introduction and Survey," *Journal of Economic Literature*, vol. 22 (1984), pp. 1007-1051, and Jamie de Melo, "Computable General Equilibrium Models for Trade Policy Analysis in Developing Countries: A Survey," *Journal of Policy Modeling*, vol. 10 (1988), pp. 469-503. For examples of analyzing commercial policies using the Commission CGE model, see USITC, *The Economic Effects of Significant Import Restraints*, USITC publication No. 2699, Nov. 1993, and Bruce A. Blonigen, Joseph E. Flynn, and Kenneth A. Reinert, "Modeling Detailed Commercial Policies," in *Trade Policy Modeling: A Handbook*, Joseph F. Francois and Kenneth A. Reinert, eds. (Cambridge, U.K.: Cambridge University Press, forthcoming).

<sup>6</sup> Unlike the case study chapters, this chapter focuses solely on the effect of the remedy at a particular point in time, 1991. The reason is that it is relatively easy to identify all sectors in the U.S. economy for which an AD/CVD order exists—it is precisely those sectors whose products had an affirmative AD/CVD determination, not revoked, suspended or terminated, prior to 1992.

Analyzing the economic effects of outstanding AD/CVD orders presents an unusual modeling challenge, in that the length of time a particular order has been in place varies from one order to the next. As a result, the modeling effort must take into account how these AD/CVD remedies vary over time. Thus, before describing the methodology used to estimate the effects of outstanding orders, it is important to briefly review the salient points connected with implementation and assessment of AD/CVD orders over time.

## Implementation and Assessment of AD/CVD Orders<sup>7</sup>

When a final affirmative determination is made by the Commission, Commerce issues an AD or CVD order. In an AD investigation, the imports under investigation become subject to a cash deposit equal to the value of subject imports times the percentage difference (the margin) between the "normal value"<sup>8</sup> and the U.S. price of the imports as determined in the final investigation by Commerce. For CVD investigations, imports under investigation become subject to a cash deposit equal to the value of subject imports times a subsidy margin representing the subsidy received by the foreign firm. When an AD or CVD order is implemented by Customs, however, the duty deposits do not necessarily represent the final amount of duties to be assessed on the subject imports. Rather, the margin determined in Commerce's final investigation is used as a basis for estimating the duty liability of the importer.

The actual liability of the importer is determined after the fact by Commerce. Before 1984, this was accomplished by automatic yearly administrative reviews by Commerce. However, since 1984, such reviews have become voluntary; that is, unless an interested party requests a review, the duties assessed are those found in Commerce's final determination (or most recent administrative review). The purpose of an administrative review is to adjust the margin on subject imports as changes occur in the difference between their U.S. price and their normal value or in

<sup>7</sup> See chapter 2 for a more detailed explanation of the issues discussed here.

<sup>8</sup> The normal value of the foreign like product is generally based on its home market sale prices. If home market sales are inadequate, then normal value is based on sale prices in third country markets. Finally, if third country sales are inadequate, then normal value is based on a constructed value for the foreign like product.

the subsidy rate. If a subsequent review determines that the margin during the review period is different from the previous margin used as a basis for the importer's cash deposit, a bill (or refund) in the amount of the difference plus interest is assessed (or rebated). From 1980 through 1991, over 80 percent of outstanding AD orders were subject to at least one administrative review.<sup>9</sup> For modeling purposes, it is assumed that when a foreign firm changes its U.S. price, it has some degree of certainty as to what the effective duty assessed will be.<sup>10</sup>

## Methodology

The Commission CGE model estimates in one simulation exercise the economy-wide impact of all AD/CVD orders in place during 1991. The Commission CGE model simulates the interactions among producers and consumers within the U.S. economy in markets for goods, services, labor, and physical capital. Distinguishing features of CGE models are their economy-wide coverage and multisectoral nature. The Commission model explicitly accounts for upstream and downstream production linkages, and intersectoral competition for labor and capital.

Policy changes, such as AD/CVD order removal, are introduced into the Commission CGE model under the assumption that there are no changes in macroeconomic activity such as monetary policy, fiscal policy, or foreign economic behavior. In addition, the model is static (e.g., the dynamic effects of economic growth are not modeled), total employment is held constant at the level observed in 1991, and the current account balance is held constant. Furthermore, the model does not incorporate expected future changes in these factors, and thus, it is not a forecast. In the application of the Commission CGE model, it compares one static situation (AD/CVD orders in place) with another static situation (AD/CVD orders not in place) for the year

<sup>9</sup> See H.J. Shin, "Do Anti-Dumping Duties Work? An Analysis of the Effect of Anti-Dumping Duties on Foreign Firm Behavior," unpublished manuscript, 1994.

<sup>10</sup> Some observers have contended that there is uncertainty involved with Commerce administrative reviews because Commerce can change its methodology for determining margins from one investigation or review to another. For example, see Richard Bolnick and Robert Litan, eds., *Down in the Dumps: Administration of the Unfair Trade Laws* (Washington, DC: The Brookings Institution, 1991), ch. 3, and Congressional Budget Office, *How the GATT Affects U.S. Antidumping and Countervailing-Duty Policy* (Washington, DC: Congressional Budget Office, 1994), ch. 4.

1991. Therefore, the analysis emphasizes the effect of the orders in isolation from other factors that affect the U.S. economy.

The data used by the Commission CGE model are in the form of a large "social accounting matrix" (SAM). The SAM organizes into a consistent framework data on interindustry flows, value added, imports, and final demand for 491 sectors in agriculture, manufacturing, and services. In the modeling exercise, sectors of interest are isolated and the remaining sectors are aggregated into nine broad sectors that represent the remainder of the U.S. economy. The Commission SAM is assembled from a variety of government data sources and updated to the most current data available. The other major inputs into the Commission model are the parameters that represent the behavior of economic agents in the U.S. economy.<sup>11</sup> The database assembled for this analysis also includes the actual AD/CVD duty rates assessed by Customs in 1991, the final Commerce margins by subject product at the time of its original investigation, and the value of imports from Commerce.

Modeling the economic effects of outstanding AD/CVD orders using the Commission CGE model must take into account a number of important issues concerning the differences between how AD/CVD duties are calculated, collected, and reviewed.<sup>12</sup> The modeling technique used is also constrained by the data and information available on outstanding AD/CVD orders. As discussed below, AD orders can cause foreign firms to change their pricing decisions, and since the data contain no specific information on

<sup>11</sup> As noted in the prehearing brief submitted by Dewey Ballantine, these parameters, which are in the form of elasticities, are an important input into the Commission model. These elasticities have been carefully assembled by the staff of the Commission and are either econometrically estimated or gathered from published sources such as economic journals. See USITC, *The Economic Effects of Significant U.S. Import Restraints*, USITC publication No. 2699, Nov. 1993, for more details on the SAM and the model.

<sup>12</sup> One issue the model does not take into account is the uncertainty generated in the market once a petition is filed or an order is put in place. In particular, the potential open ended liability on the importer of orders (even with small margins) could have a chilling effect on imports given the administrative review options of the parties. Another issue that is beyond the scope of the modeling technique employed in this chapter are the legal, administrative, and other dollar costs associated with AD/CVD investigations. Questionnaire responses indicated that, in general, a simple case costs about \$250,000 and a complicated case can cost \$1 million.

these pricing decisions, it is only possible to infer what these changes may be.

The Commission model specifically takes into account the differences in the behavior that antidumping duties and countervailing duties are designed to remedy. Under a CVD order, the margins are intended to compensate for the effect of subsidization of the subject good by a foreign government. Thus, calculation of the CVD margin is unrelated to any changes in behavior, such as pricing decisions, by the foreign firm or the importer of the subject good. However, with AD orders, the calculated margin is endogenously determined by the prices charged by the foreign firm in the U.S. market and the subject import's normal value. This significantly affects how each type of order should be modeled. In the case of a CVD order, modeling the margin as a simple ad valorem tariff is appropriate, since the foreign firm's behavior cannot affect the level of the CVD margin, and this is the method used to model CVD orders in the Commission CGE model. On the other hand, accurate modeling of AD orders is more complicated.

The AD margin determined by Commerce in its final investigation represents the amount of duties that will ultimately be assessed on the subject imports, unless the margin of dumping is eliminated. Consequently, the prices of subject imports are expected to rise in the U.S. market. However, it is possible that the foreign firm could raise its U.S. price, lower its home-market or third-country price, or some combination of both to close the margin and avoid AD duties.<sup>13</sup> If the foreign firm decides not to react to an AD order by changing prices, then the duty collected each year should be equal to the final margin determination made at the time of the investigation. In this case, modeling the AD margin as an ad valorem tariff is appropriate.

However, in the Customs ENB database and in the discussion of the cases highlighted in part III of this report, it is often the case that the actual AD duties assessed and collected are smaller than the final margins determined by Commerce at the time of the original investigation. This suggests that the foreign firm's pricing decisions have changed and that the margin has been subsequently reduced through an administrative review.<sup>14</sup> In fact, an examination of

<sup>13</sup> This assumes, of course, that the foreign firm requests an administrative review.

<sup>14</sup> A recent study found that average antidumping duty rates fall by 40 percent after the first administrative review is conducted. See James DuVault, "Antidumping Administrative Reviews and Import Pricing," unpublished manuscript, 1993.

tables 14-2 and 14-3 in chapter 14 for the ball bearings cases reveals that a large number of administrative reviews have taken place and have greatly reduced the original AD margins. Similarly, administrative reviews for frozen concentrated orange juice (chapter 7), color picture tubes (chapter 10), and brass sheet and strip (chapter 12), have resulted in lower AD duties. Unfortunately, the data do not indicate whether the foreign firm has been assessed a reduced duty as a result of a reduction in the import's normal value, an increase in its U.S. price, or some combination of both.

However, the analysis in the latter part of chapter 3 suggests that importers increase the U.S. price of subject imports when an AD order is put in place. In addition, this increase in the price of subject imports is also supported by information from the case studies. In particular, after remedies were put in place, Brazil changed its export pricing formula for frozen concentrated orange juice (see figure 7-6), the price of imported color picture tubes rose considerably (see figure 10-4), and the import prices (net of input costs) of the brass sheet and strip rose above domestic prices (see figure 12-3). Consequently, in the analysis below, it is assumed that lower margins from administrative reviews stem from increases in foreign firms' U.S. prices of subject imports.<sup>15</sup>

Given the assumption that price increases for subject imports occur in the U.S. market, leaves three possible actions by the foreign firm, depending on how its pricing decisions are influenced by the imposition of an AD order:

- 1) The foreign firm may leave its U.S. price unchanged;
- 2) The foreign firm may raise its U.S. price by the full amount of the AD margin; or
- 3) The foreign firm may raise its U.S. price, but not by the full amount of the AD margin.

For this analysis, it is assumed that the AD margin is fully passed through to U.S. consumers. Consequently, the price effect in the U.S. market will be the same in all three cases. That is, the price U.S. consumers ultimately pay for a subject import is equal to the pre-duty U.S. price plus the full amount of the original margin regardless of whether or how much a foreign firm raises its U.S. price. However, a foreign firm or an unrelated importer could choose to reduce its revenues by not passing on to U.S.

<sup>15</sup> To the extent that foreign firm normal value is reduced, this analysis would tend to overestimate the economic cost of the orders.

consumers the full amount of the margin in the form of a price increase. The data do not indicate the degree of pass through.<sup>16</sup>

However, in other respects, each of the three actions have different overall economic welfare consequences. Specifically, in the first case (the foreign firm does not change its U.S. price), duties are collected by Customs at a rate equal to the margin calculated by Commerce. In this case, the AD margin can be accurately modeled in the Commission CGE model as a simple ad valorem tariff, which generates revenue for the U.S. Treasury equal to the margin times the value of subject imports.

Modeling the AD margin as a simple ad valorem tariff in the second case would be incorrect, however. In this case, the foreign firm raises its U.S. price to match the normal value of the subject imports as calculated by Commerce. Presuming that administrative reviews are consistent, the foreign firm could then request an administrative review and receive a refund of its cash deposit (with interest) in the amount of the full margin times the import value. Thus, effectively no tariff revenue is collected by the U.S. Treasury. Instead, the increased revenue from the higher price would now accrue to the foreign firm, which implies very different welfare effects. In fact, the welfare effect in this case is similar to the analysis of a quantitative restriction, such as a quota or voluntary restraint agreement. When the foreign firm responds to an order by raising the U.S. price of the subject import by the full margin, there is an income transfer (i.e., an economic welfare gain) to the foreign firm. Thus, this case is modeled like a quantitative restriction that generates no tariff revenue for the U.S. Treasury, but revenue for the foreign firm.<sup>17</sup> However, note that in these two cases, a price difference equal to the full margin is in effect, and thus, the price effect in the U.S. market will be the same. The difference is that in the first case, the U.S. Treasury benefits from the AD margin, while in the second case, the foreign firm enjoys the full benefit of the margin.

The third case simply involves modeling the price effect of Commerce's final margin as an appropriate combination of the two actions described above. To

the extent that the foreign firm raises its U.S. price, that price increase is modeled similar to a foreign-held quota. Any remaining difference between the U.S. price charged by the foreign firm and its normal value is the duty rate that will be collected as revenue for the U.S. Treasury. This remaining difference is modeled as an ad valorem tariff in the model.

## Data

Modeling the economic effects of outstanding AD/CVD orders as described in the previous section requires data on 1991 AD/CVD ad valorem duty rates and original AD margins by Commission sector. The estimation database includes a total of 163 AD orders and 76 CVD orders. In assembling the database, there are cases that are not captured by the Commission model. For example, the model does not capture the economic effects of AD/CVD cases that were revoked, terminated, or suspended prior to 1991. Moreover, many AD/CVD petitions have been filed and withdrawn as well. For example, a large number of AD/CVD steel cases filed in the early 1980s ended with voluntary export restraints and are not included in the estimation. Consequently, AD/CVD activity that were discontinued/completed before 1991 certainly had some impact on the U.S. economy, but it is beyond the scope of this estimation. The following discussion outlines how the AD/CVD orders were assembled for this estimation.

From 1955-91 there have been 307 AD investigations for which non-negative final Commission determinations have been made. Since the model estimates the effects for the year 1991, the economic impact of the AD cases that were revoked (84), terminated (16), or suspended (3) prior to 1991 are not estimated in this exercise. In addition, 45 of the remaining active AD cases do not have imports.<sup>18</sup> Of the 45 active AD orders with no imports, a majority of cases (41) affect a small volume of trade in the market for the U.S. like product (imports less than \$10 million or less than a 5 percent share of U.S. imports) and/or are cases in which data necessary to include them are unavailable.<sup>19</sup> The remaining 4 of

<sup>16</sup> To the extent that the duty is not fully passed through to U.S. consumers, this analysis would tend to overestimate the economic cost of the orders.

<sup>17</sup> Modeling scenario two in this way is more precise than modeling a traditional quantitative restriction. When modeling a quantitative restriction, the equivalent price effect of the restriction must be estimated, but in scenario two, the price effect is analytically equal to the price effect represented by the original AD margin.

<sup>18</sup> AD/CVD orders that resulted in a cessation of imports are still likely to have an impact on the U.S. economy in 1991. There are a variety of reasons why subject imports have ceased entering the U.S. market. For example, importers may be facing prohibitively high AD margins or the administrative burden and open liability of future margins may deter subject imports.

<sup>19</sup> In fact, one case faces an embargo, In-Shell Pistachio Nuts From Iran, 731-TA-287, 1986.

the 45 active AD orders with no imports are included in the estimation because they are recent cases that accounted for a sizable amount of imports (nearly \$150 million at the time of the original investigation) and data necessary to include them are available.<sup>20</sup> Overall, 163 AD orders are included in the estimation (307 (non-negative determinations) - 84 (revoked) - 16 (terminated) - 3 (suspended) - 41 (missing) = 163).

In 1991, there were 192 non-negative CVD determinations identified by Commerce as active since 1980.<sup>21</sup> The effects of CVD cases that were revoked (86), terminated (21), or suspended (6) prior to 1991 are not estimated in this exercise. In addition, three of the remaining active CVD cases do not have imports. These cases are not included because data on two are unavailable and the third has a margin of less than one percent. Overall, 76 CVD orders are included in the estimation (192 (orders active since 1980) - 86 (revoked) - 21 (terminated) - 6 (suspended) - 3 (missing) = 76).

Since AD/CVD margins and duty rates are determined and collected by Customs for individual foreign firms at the 10-digit HTS level, aggregating the relevant data to the level of the Commission model sectors (which approximate 4-digit SIC commodity industries) requires care. There were over 1,300 affected 10-digit HTS product categories, with imports from nearly 50 countries, in 1991. Once aggregated into the Commission model sectors, close to 100 (or 20 percent) of the Commission CGE sectors are affected in some manner by an AD or CVD order. Most sectors covered by orders are manufacturing industries; however, several agricultural products are also covered. The next section describes the aggregation of the original AD margins to the Commission sectoring scheme. Following that, the procedure used to aggregate the actual 1991 AD/CVD duty rates is described.

<sup>20</sup> These 4 AD investigations include Urea From the German Democratic Republic, Romania, and the Union of Soviet Socialist Republics, 731-TA-338 through 340, 1987, and Certain Electrical Conductor Aluminum Redraw Rod From Venezuela, 731-TA-378, 1988.

<sup>21</sup> The 192 CVD orders include those determined prior to 1980. In addition, many affirmative determinations did not have an injury determination by the Commission because the subject country was not a signatory to the GATT Subsidies Agreement. Consequently, it is not possible to quantify the CVD orders in the same manner as the AD orders.

## Original AD Margin Calculation

During AD investigations and administrative reviews, Commerce determines individual margins for each investigated firm that exports from the foreign country subject to the investigation. In addition, Commerce also determines a margin that is applicable for all other firms that might also export the subject product from that same foreign country. Specifically, Commerce determines an "all other" margin for a country that is a trade-weighted average margin determined from the firms identified in the original investigation.<sup>22</sup> Since firm level trade flows are not available, the "all other" margin is used for each affected country by 10-digit HTS product category in the Commission database.

Next, an important adjustment is made to the country-specific margins. Specifically, the amount of trade within a 10-digit HTS product category that is covered by particular AD orders needs to be accounted for, since some orders do not affect all the products within a HTS category.<sup>23</sup> The share of each 10-digit HTS product category subject to an outstanding AD order in 1991 is used to adjust the country-specific margin appropriately.<sup>24</sup> Once adjusted, these country-specific margins are aggregated across countries using weights determined by each country's 1991 share of trade within the HTS product category to arrive at an effective margin for the entire 10-digit HTS category.<sup>25</sup>

<sup>22</sup> See chapter 2 for a more detailed description and for exceptions.

<sup>23</sup> Nearly 78 percent of the HTS categories identified are fully affected by AD/CVD orders. For the cases that were only partially affected, Commission staff were able to specify the proportion of the category affected to reasonably narrow levels.

<sup>24</sup> For example, if 80 percent of the imports in a 10-digit HTS product category from a certain country are subject to a 50-percent AD margin, then the entire 10-digit HTS code from that country is effectively subject to a 40-percent ( $0.8 * 0.5$ ) margin. To the extent that the trade mix within the HTS category has changed since the time of the original investigation, the calculated margin for the entire HTS category may either understate or overstate the effective margin. That is, if trade diversion occurs from the 80 percent of the code that is affected by the order to the 20 percent that is unaffected, then the calculated margin will overstate the effective margin. However, given the fact that little is known about the trade mix within HTS categories, the adjustment just described seems reasonable.

<sup>25</sup> Since 1991 represents the final year of the sample, the trade weights used give less weight to high margin countries because if the AD/CVD orders were not in

The final step is to aggregate the margins from the 10-digit HTS level to the 491 industry sectors contained in the Commission model. Once again, this aggregation uses 1991 trade volumes to assign weights that account for each HTS category's share of imports across the relatively broad Commission sectors.

## Actual 1991 AD/CVD Margin Calculation

Data on firm-specific original final AD margins are published in the Commission reports for each AD/CVD investigation and published in the Federal Register by Commerce. However, actual 1991 AD/CVD duty rates by country at the 10-digit HTS level were determined using the Customs ENB database. Aggregating these AD/CVD duty rates into an average duty for each affected Commission sector is accomplished in a similar fashion to the above aggregation of the original AD margins.

<sup>25</sup>—Continued

place, imports would have been higher and the trade weights would have been larger. Therefore, using weights from actual 1991 trade volumes underestimates the impact of the orders. Consequently, the estimates presented in this chapter on the economic effects of the orders should be considered conservative.

**Table 4-1**  
**AD/CVD ad valorem tariffs and additional AD price effects, 1991**  
(Percent)

Sector	Actual 1991 Average AD/CVD tariff rate <sup>1</sup>	Additional AD price effect <sup>2</sup>
Highlighted sectors:		
Ball and roller bearings .....	14.9	9.5
Telephone and telegraph apparatus .....	10.1	0.5
Rubber and plastics hose and belting .....	10.1	0.0
Electrical industrial apparatus, n.e.c. ....	9.0	6.2
Office machines, n.e.c. ....	6.5	1.9
Gaskets, packing and sealing devices .....	4.7	4.8
Cement, hydraulic .....	6.4	1.1
Industrial trucks, tractors, trailers and stackers .....	3.4	5.0
Rest of the U.S. economy:		
Agriculture, forestry, and fisheries .....	0.1	(3)
Mining .....	(3)	(3)
Construction .....	(4)	(4)
Nondurable manufacturing .....	0.2	0.1
Durable manufacturing .....	0.1	0.2
Transportation, communications, and utilities .....	(4)	(4)
Wholesale and retail trade .....	(4)	(4)
Finance, insurance, and real estate .....	(4)	(4)
Other services .....	(4)	(4)

<sup>1</sup> Average ad valorem tariff rates concorded specifically to the Commission CGE model sectoring scheme.

<sup>2</sup> Average additional price effect concorded specifically to the Commission CGE model sectoring scheme.

<sup>3</sup> Less than one-tenth of 1 percent.

<sup>4</sup> Not applicable.

Sources: Compiled from official statistics of the U.S. Department of Commerce and from the U.S. Customs Service.

First, the proportion of a 10-digit HTS product category affected by an order is determined, and this information is used to obtain an adjusted average country-specific duty rate for that 10-digit HTS category. Second, using 1991 trade volumes, the country-specific duty rates are aggregated in a trade-weighted fashion to the 10-digit HTS level. And finally, 1991 trade volumes and Commission concordances are used to aggregate the duties from the 10-digit HTS level to the sector level contained in the Commission model. In addition, AD/CVD duty rates are aggregated separately, so that the 1991 AD duty rate and original AD margin for each Commission sector could be compared to determine any additional price effect for individual sectors.

## CGE Model Sectoring Scheme

Table 4-1 presents the Commission CGE sectors substantially affected by outstanding AD/CVD orders in 1991, their average actual 1991 AD/CVD ad valorem tariff rates, and their average additional AD price effects.<sup>26</sup> As discussed in the methodology

<sup>26</sup> Commission Investigation No. 731-TA-469 (flat panel displays) is excluded from this analysis because of data problems.

section, additional AD price effects are calculated as the difference between the average original AD margin and the average actual 1991 AD duty rate for each Commission CGE sector. This difference represents the extent to which foreign firms have raised their U.S. price to reduce the margin determined by Commerce in subsequent administrative reviews. The eight sectors with the largest combined AD/CVD tariff rate and additional price effects are highlighted in the modeling exercise, with other less affected sectors aggregated with non-affected sectors into (1) agriculture, forestry, and fisheries; (2) nondurable manufacturing; and (3) durable manufacturing, which constitute three of the nine sectors describing the rest of the U.S. economy. As table 4-2 demonstrates, the highlighted Commission CGE sectors correspond well with cases considered to be significant prior to 1992, including the ball bearings cases, the small-business telephone systems cases, and the industrial belts cases.<sup>27</sup>

By and large, the highlighted sectors encompass AD case determinations only. In general, CVD margins are much smaller than AD margins (see table 3-3), and consequently, are likely to have smaller effects. Finally, the calculated average actual tariff rates and additional AD price effects are consistent with the timing of administrative reviews in these cases. Specifically, sectors affected by orders put in place in the early 1990s, which have not yet had their margins changed by administrative reviews, have average ad valorem duty rates that are essentially the same as the calculated aggregate original margin (e.g., small business telephone systems and industrial belts). Alternatively, for cases that have had administrative reviews completed, such as ball bearings and electrical industrial apparatus, average actual AD duty rates are substantially lower than the average original margin calculated for the sectors, and thus, generate larger additional price effects.

## Economic Effects of AD/CVD Order Removal

Removing outstanding AD/CVD orders results in lower import prices in those sectors formerly subject to such orders, causing both gains and losses across the U.S. economy. First, it causes consumers to substitute away from domestic products to the imports now free of the orders. Thus, domestic industries formerly subject to AD/CVD orders produce less

output and employ fewer workers in the absence of these orders, while imports in those sectors increase. Consequently, upstream suppliers of those sectors formerly subject to orders will also experience a decline in demand for their output. At the same time, however, lower prices in the economy represent an economic welfare gain to downstream industrial sectors and U.S. consumers.

## Detailed Economic Effects of Order Removal

Table 4-3 presents the detailed effects of AD/CVD order removal on sectors that had the highest AD/CVD remedy levels as of 1991 and on the remainder of the U.S. economy. Many other sectors are affected by 1991 outstanding AD/CVD orders as well. However, their economic effects are small compared with those for the highlighted sectors. Therefore, these sectors were aggregated with other non-affected sectors into the nine aggregate sectors that represent the rest of the economy (see table 4-3). The majority of these non-highlighted, but affected, sectors are part of the durable manufacturing and nondurable manufacturing sectors. Thus, table 4-3 focuses specifically on those sectors that realize the greatest adverse effects because of the removal of outstanding AD/CVD orders in 1991.

The two sectors most significantly affected are ball and roller bearings and electrical industrial apparatus. In particular, the ball and roller bearing sector experiences a 3.0-percent decrease in output of \$190 million and a similar 3.0-percent loss of 1,277 full-time equivalent workers (FTEs). In addition, imports increase by 15.7 percent (\$164 million), and exports decrease by 2.8 percent (\$21 million). Electrical industrial apparatus experiences a 3.6-percent decline in output (\$62 million) and employment (229 FTEs), and a 6.3-percent increase in imports (\$53 million) and a 3.0-percent decrease in exports (\$12 million). Another sector with notable effects is telephone and telegraph apparatus; output decreases by \$258 million with a loss of 1,464 FTEs. In addition, imports increase by \$205 million, or by 4.4 percent, and exports decrease by \$13 million, or by 0.5 percent. The effects of removing the orders in the many non-highlighted sectors do show up in the estimated effects for the durable and nondurable manufacturing sectors. Durable manufacturing experiences a \$337 million output loss and 1,923 fewer FTEs, and nondurable manufacturing sees output fall by \$118 million and 476 fewer FTEs. In percentage terms, however, these losses are quite small.

<sup>27</sup> Of course, many other significant cases, such as the steel cases of the early 1980s, resulted in trade agreements and a corresponding withdrawal of AD/CVD petitions. These cases are not part of the estimation.



**Table 4-2**  
**AD/CVD investigations included in the highlighted Commission sectors**

Sector	Year filed	Source	Investigation	Product
Ball and roller bearings	1988	Germany	731-TA-391	Antifriction bearings
	1988	France	731-TA-392	Antifriction bearings
	1988	Italy	731-TA-393	Antifriction bearings
	1988	Japan	731-TA-394	Antifriction bearings
	1988	Romania	731-TA-395	Antifriction bearings
	1988	Singapore	731-TA-396	Antifriction bearings
	1988	Sweden	731-TA-397	Antifriction bearings
	1988	Thailand	731-TA-398	Antifriction bearings
	1988	United Kingdom	731-TA-399	Antifriction bearings
	1988	Singapore	303-TA-19	Antifriction bearings
	1988	Thailand	303-TA-20	Antifriction bearings
	1986	Hungary	731-TA-341	Tapered roller bearings
	1986	Italy	731-TA-342	Tapered roller bearings
	1986	Japan	731-TA-343	Tapered roller bearings
	1986	China	731-TA-344	Tapered roller bearings
	1986	Romania	731-TA-345	Tapered roller bearings
	1986	Yugoslavia	731-TA-346	Tapered roller bearings
	1975	Japan	AA1921-143	Tapered roller bearings
Telephone and telegraph apparatus	1989	Japan	731-TA-426	Small business telephone systems
	1989	Korea	731-TA-427	Small business telephone systems
	1989	Taiwan	731-TA-428	Small business telephone systems
Rubber and plastics hose and belting	1988	Italy	731-TA-413	Industrial belts
	1988	Japan	731-TA-414	Industrial belts
	1988	Singapore	731-TA-415	Industrial belts
	1988	Germany	731-TA-419	Industrial belts
Electrical industrial apparatus, n.e.c.	1989	Japan	731-TA-426	Small business telephone systems
	1989	Korea	731-TA-427	Small business telephone systems
	1989	Taiwan	731-TA-428	Small business telephone systems
	1971	France	AA1921-86	Large power transformers
	1971	Italy	AA1921-87	Large power transformers
	1971	Japan	AA1921-88	Large power transformers
	1971	Switzerland	AA1921-89	Large power transformers
	1971	United Kingdom	AA1921-90	Large power transformers
Office machines, n.e.c.	1991	Japan	731-TA-483	Word processors
	1980	Japan	731-TA-12	Portable electric typewriters
Gaskets, packing and sealing devices	1988	Germany	731-TA-391	Antifriction bearings
	1988	France	731-TA-392	Antifriction bearings
	1988	Italy	731-TA-393	Antifriction bearings
	1988	Japan	731-TA-394	Antifriction bearings
	1988	Romania	731-TA-395	Antifriction bearings
	1988	Singapore	731-TA-396	Antifriction bearings
	1988	Sweden	731-TA-397	Antifriction bearings
	1988	Thailand	731-TA-398	Antifriction bearings
	1988	United Kingdom	731-TA-399	Antifriction bearings
	1977	Canada	AA1921-166	Certain parts for paving equipment
Cement, hydraulic	1990	Japan	731-TA-461	Portland cement
	1989	Mexico	731-TA-451	Portland cement
Industrial trucks, tractors, trailers and stackers	1987	Japan	731-TA-377	Internal combustion forklift trucks

Source: U.S. International Trade Commission

**Table 4-3**  
**Economic effects of AD/CVD removal, 1991**

Sector	Employment		Output		Imports		Exports	
	Number <sup>1</sup>	Percent	Value	Percent	Value	Percent	Value	Percent
Sector			Million dollars <sup>2</sup>		Million dollars <sup>2</sup>		Million dollars <sup>2</sup>	
<b>Highlighted sectors:</b>								
Ball and roller bearings .....	-1,277	-3.0	-190	-3.0	164	15.7	-21	-2.8
Telephone and telegraph apparatus .....	-1,464	-1.4	-258	-1.4	205	4.4	-13	-0.5
Rubber and plastics hose and belting .....	-31	-0.1	-4	-0.1	5	1.0	-1	-0.1
Electrical industrial apparatus, n.e.c. ....	-229	-3.6	-62	-3.6	53	6.3	-12	-3.0
Office machines, n.e.c. ....	-344	-0.8	-30	-0.8	29	6.1	-5	-0.7
Gaskets, packing and sealing devices .....	-174	-0.9	-33	-0.9	32	6.6	-3	-0.8
Cement, hydraulic .....	-137	-0.6	-33	-0.6	32	7.5	( <sup>3</sup> )	-0.6
Industrial trucks, tractors, trailers, and stackers .....	-419	-1.5	-48	-1.5	36	5.8	-11	-1.4
<b>Rest of the U.S. economy:</b>								
Agriculture, forestry, and fisheries .....	157	( <sup>4</sup> )	26	( <sup>4</sup> )	7	0.1	31	0.1
Mining .....	-3	( <sup>4</sup> )	-4	( <sup>4</sup> )	-7	( <sup>4</sup> )	3	( <sup>4</sup> )
Construction .....	25	( <sup>4</sup> )	-1	( <sup>4</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Nondurable manufacturing ..	-476	( <sup>4</sup> )	-118	( <sup>4</sup> )	217	0.2	19	( <sup>4</sup> )
Durable manufacturing .....	-1,923	( <sup>4</sup> )	-337	( <sup>4</sup> )	463	0.1	89	( <sup>4</sup> )
Transportation, communications, and utilities .....	507	( <sup>4</sup> )	87	( <sup>4</sup> )	-20	( <sup>4</sup> )	35	0.1
Wholesale and retail trade .....	818	( <sup>4</sup> )	44	( <sup>4</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Finance, insurance, and real estate .....	667	( <sup>4</sup> )	137	( <sup>4</sup> )	-1	( <sup>4</sup> )	4	( <sup>4</sup> )
Other services .....	2,856	( <sup>4</sup> )	219	( <sup>4</sup> )	-11	( <sup>4</sup> )	35	( <sup>4</sup> )

<sup>1</sup> Full-time equivalent workers.

<sup>2</sup> In 1991 prices.

<sup>3</sup> Change less than \$1 million.

<sup>4</sup> Change less than one-tenth of 1 percent.

<sup>5</sup> Nontradable sector.

Source: Estimated by the staff of the U.S. International Trade Commission.

In a general equilibrium framework, the extent of the adverse effects to the sectors previously subject to AD/CVD orders is related not only to how large these duties were for the particular industry, but also whether the industry is upstream or downstream to other industrial sectors affected by the orders. If AD/CVD orders are eliminated in sectors upstream to a particular sector, then that downstream sector enjoys lower input prices and this tends to increase output and employment in that downstream sector. This outcome may mitigate or completely offset the effects of removing a sector's AD/CVD order, which tends to reduce output and employment in that sector. These types of effects highlight a distinction of CGE models—economic effects in one sector can affect other sectors.

The importance of these upstream and downstream relationships can be seen to some extent in the estimated effects of the highlighted sectors. Ball and roller bearings and electrical industrial apparatus have few upstream industrial sectors. Thus, they have less chance to benefit from lower input prices because of the removal of other AD/CVD orders. As a result, their estimated output and employment losses in percentage terms are relatively high. On the other hand, these sectors supply a large number of downstream sectors that would benefit from lower input prices if the orders were lifted.

Much of the gain from removing outstanding AD/CVD orders in 1991 comes from lower import prices, and thus, lower market prices in the U.S.

economy. Table 4-4 presents import price changes and U.S. market price changes by highlighted and aggregated sector.<sup>28</sup> Removing the orders results in significantly lower import prices in the highlighted sectors. All highlighted sectors experience import price declines of 7 percent or more, with ball and roller bearing import prices falling by almost 20 percent. These lower import prices translate into lower overall prices for U.S. consumers as well. For example, the market price in electrical industrial apparatus falls by 5.6 percent, while U.S. consumers of ball and roller bearings enjoy prices that are lower by nearly 4 percent.

While the adverse effects due to order removal are concentrated in those sectors formerly subject to such orders, gains from order removal in the form of lower prices represent price changes that are dispersed across the entire U.S. economy. Thus, while each sector previously subject to an order experiences price decreases that are roughly the same magnitude as the loss in output and employment, the cumulative effect of such price decreases across all related downstream sectors and consumers can be quite large.

<sup>28</sup> The U.S. market price change is a weighted average of changes in the domestic industry's prices and of changes in its import prices.

## Differential Effects on Wages and Profits

Petitioning industries and industries upstream from petitioners are estimated to experience losses as the result of removing outstanding AD/CVD orders. Estimates of these losses in the form of declines in output and employment are presented in Table 4-3. The purchasers of imports formerly subject to orders benefit from the opportunity to buy these goods at lower prices. In addition, the rest of the economy experiences a small, but measurable, indirect gain from the removal of AD/CVD orders due to the effects of such orders on economic efficiency.

To derive more insight from the simulation regarding the specific effects on adversely affected industries, one can utilize the CGE model results on the gains and losses in wages received by workers and profits received by firm owners (i.e., value-added) in each model sector. The model yields an increase of \$1.85 billion in wages and profits as a result of the removal of AD/CVD orders, as compared with the estimated \$1.59 billion increase in net economic

**Table 4-4**  
**Price effects of AD/CVD removal, 1991**

(Percent)		
Sector	Price of imports	U.S. market price <sup>1</sup>
Highlighted sectors:		
Ball and roller bearings .....	-19.7	-3.9
Telephone and telegraph apparatus .....	-9.2	-2.6
Rubber and plastics hose and belting .....	-8.8	-1.2
Electrical industrial apparatus, n.e.c. ....	-13.4	-5.6
Office machines, n.e.c. ....	-7.7	-1.1
Gaskets, packing and sealing devices .....	-8.7	-1.2
Cement, hydraulic .....	-7.0	-0.6
Industrial trucks, tractors, trailers, and stackers .....	-7.8	-2.0
Rest of the U.S. economy:		
Agriculture, forestry, and fisheries .....	-0.1	(2)
Mining .....	(2)	(2)
Construction .....	(3)	(3)
Nondurable manufacturing .....	-0.2	(2)
Durable manufacturing .....	-0.3	-0.1
Transportation, communications, and utilities .....	0.1	(2)
Wholesale and retail trade .....	(3)	(3)
Finance, insurance, and real estate .....	0.1	(2)
Other services .....	0.1	(2)

<sup>1</sup> This price change represents the final prices faced by U.S. consumers, i.e., it represents a composite of domestic prices and import prices.

<sup>2</sup> Change less than one-tenth of 1 percent.

<sup>3</sup> Nontradeable sector.

Source: Estimated by the staff of the U.S. International Trade Commission.

welfare.<sup>29</sup> A decomposition of the value-added measure can provide useful information about the relative effects of the removal of AD/CVD orders on gainers and losers and serve as a useful proxy for the theoretically more desirable, but computationally intractable, direct decomposition of the economic welfare measure.

Of the 17 model sectors, 12 experience both imports subject to AD/CVD orders and non-subject imports, i.e., these sectors contain both losers and gainers. The other five are service sectors for which there are no AD/CVD orders. To obtain a specific decomposition of model results for wages and profits by the gainers and losers from the removal of AD/CVD orders, it is necessary to decompose the model's estimate of the change in value-added for the 12 relevant sectors into the portion attributable to the losses of petitioning and upstream industries, and the gains attributable to the rest of the sector. This composition could be performed directly given three values: 1) the percentage of value-added in each sector attributable to petitioning and upstream industries; 2) the percentage losses in value-added experienced by petitioning and upstream industries; and 3) the percentage gains in value-added experienced by the rest of the model sector. None of these three percentages is directly observable.

The data used for the CGE model experiment were used in conjunction with the logical limits on the three percentages referred to above as well as reasonable economic assumptions in order to provide a feasible and reasonable range of losses in wages and profits experienced by those industries adversely affected by the removal of the orders within each model sector. These were then aggregated to provide a similar range of implied losses for adversely affected industries in the economy as a whole. The implied losses fall within a range of \$320 million to \$1.09 billion. The corresponding implied gains to the rest of the economy thus range from \$2.17 billion to \$2.94 billion. The midpoint of these estimates yields losses of \$710 million and gains of \$2.56 billion; the difference between these two figures corresponds to the \$1.85 billion net increase in wages and profits.<sup>30</sup>

<sup>29</sup> The differences between the value-added measure and the net economic welfare measure are primarily due to the behavior of savings, taxation, and miscellaneous forms of income (other than value-added to labor and capital arising from production) in the model.

<sup>30</sup> Formally, any decomposition of value-added within a model sector must satisfy

## Net Economic Welfare Effects of Order Removal

The Commission CGE model estimates the net economic welfare effects of policy changes, such as AD/CVD order removal, by using an "equivalent variation" measure of economic welfare. The equivalent variation measure asks what income change (in constant prices) would need to be *given to* or *taken away from* U.S. households so that they would remain equally well off under the alternative policy scenario of AD/CVD order removal. Since the Commission model specifies that firms pay income to households (including wages and profits), changes in the income of firms from order removal are fully reflected in changes in the income of households. For this reason, the equivalent variation measure is appropriate to assess the economy-wide net economic welfare change. That is, it measures not only the income gain consumers experience from lower prices due to order removal, but also the net gain or loss to

30—Continued

$$\left(\frac{dY}{Y}\right)_{ms} = \beta \left(\frac{dY}{Y}\right)_{pu} + (1 - \beta) \left(\frac{dY}{Y}\right)_{rs}$$

where  $dY/Y$  is the proportionate change in value-added as the result of the experiment; the subscripts  $ms$ ,  $pu$  and  $rs$  denote the model sector, the petitioning and upstream industries, and the rest of the sector respectively; and  $\beta$  denotes the share of petitioning and upstream industries in the value-added of the model sector prior to the experiment. The three variables on the right-hand side of the equation are unknown. However, the value of  $(dY/Y)_{ms}$  is provided by the model,  $(dY/Y)_{pu} < 0$ ,  $(dY/Y)_{rs} > 0$  and  $0 < \beta < 1$ . Let  $\delta$  denote the share of model sector imports covered by AD/CVD orders. Import penetration for petitioning industries is likely to be greater than for non-petitioning industries in the same model sector. Examination of the quadrant of the input-output table spanned by the highlighted sectors provided an estimate of the maximum share of upstream firms in the production of those sectors, denoted as  $\mu$ . Thus,  $0 < \beta < (\delta + \mu)$ . It is also the case that  $(dY/Y)_{pu} > -1$  (a sector can lose no more than its original value-added). Furthermore,  $(dY/Y)_{rs}$ , which represents primarily indirect efficiency gains in the rest of the economy, is small, very likely not exceeding 0.001.

The above restrictions on  $\beta$ ,  $(dY/Y)_{pu}$  and  $(dY/Y)_{rs}$  imply a feasible range of decompositions for value-added in each model sector into value-added for producers and upstream industries and value-added for the rest of the sector. The upper and lower bounds of feasible decompositions for each sector are then summed to produce upper and lower bounds of the aggregate decomposition.

all firms in the economy from removal of outstanding AD/CVD orders.

In this modeling exercise, the estimated effect of removing outstanding AD/CVD orders is a net economic welfare gain to the U.S. economy of \$1.59 billion in 1991. In other words, the presence of AD/CVD orders represents a collective net cost to the U.S. economy in 1991 of \$1.59 billion. This figure represents the magnitude by which the cost of these orders in 1991 (from higher prices and accompanying inefficiencies such as the misallocation of labor and physical capital) outweighs the benefits derived by having the orders in place.

The magnitude of this welfare estimate is affected by many of the underlying assumptions dictated by the modeling technique employed and various data constraints. As discussed throughout this chapter, there are several assumptions and data constraints that result in an underestimation and overestimation of the effects of AD/CVD orders. Those that would result in an underestimation include: 1) this is a static estimate for the year 1991 and it does not take into account the

cumulative effects of existing orders; 2) AD/CVD petitions may have been filed and withdrawn; 3) AD/CVD activity may have been revoked, terminated, or suspended before 1991; 4) 44 active AD/CVD orders are missing because they resulted in a cessation of imports; 5) the trade weights used give less weight to high margin countries because 1991 represents the final year of the sample; and 6) the model does not take into account uncertainty generated in the market once an order is put in place such as the open liability facing the importer of orders, which could have a chilling effect on imports. In addition, the modeling technique employed does not account for the legal, administrative, and other dollar costs associated with AD/CVD investigations. Those that would result in an overestimation include: 1) it is assumed that lower subsequent margins from administrative reviews stem from changes in foreign firms' U.S. prices for the subject imports; and 2) it is assumed that the prices U.S. consumers ultimately pay for the subject imports are equal to the pre-duty U.S. price plus the full amount of the original margin.



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**PART III**  
**Case Studies:**  
**Economic Effects on Selected Sectors**





# CONTENTS

Page

## PART III. Case Studies: Economic Effects on Selected Sectors

Chapter 5. The case study methodology: The economics of dumping and subsidization of imports and remedies .....	5-1
Introduction .....	5-1
Review of economic literature .....	5-1
The economic rationale for dumping and subsidization of imports .....	5-1
The economic rationale for dumping .....	5-4
The economic rationale for export subsidies .....	5-4
The economic effects of dumped and subsidized imports and remedies .....	5-4
Measurement of economic effects of dumped and subsidized imports .....	5-6
Measurement of the economic effects of remedies .....	5-9
Case study methodology .....	5-10
Time series analysis .....	5-11
Comparative static analysis .....	5-11
Market effects .....	5-13
Welfare effects of import price changes .....	5-13
Consumer effects .....	5-13
Producer effects .....	5-13
Upstream and downstream effects .....	5-13
Computable partial equilibrium analysis .....	5-15
Measurement of dumping and remedy for CPE analysis .....	5-16
Measurement of subsidy and remedy for CPE analysis .....	5-17
Measurement of suspension agreements for CPE analysis .....	5-18
Data needs for CPE analysis .....	5-18
Measurement of net welfare effect .....	5-18
References .....	5-20
Chapter 6. The case studies: Selection methodology and major findings .....	6-1
Selection methodology .....	6-1
Major findings of the case studies .....	6-4
Frozen concentrated orange juice .....	6-4
Lamb meat .....	6-6
EPROMS .....	6-8
Color television picture tubes .....	6-9
Solid urea .....	6-11
Brass sheet and strip .....	6-13
Standard welded pipe and tube .....	6-14
Bearings .....	6-16
Chapter 7. Frozen concentrated orange juice .....	7-1
History of title VII investigation .....	7-1
Scope of investigation .....	7-3
Subject products .....	7-3
Domestic industry .....	7-3
Description of upstream industry .....	7-4
Description of downstream industry .....	7-4
Substitute products .....	7-5
Approach of investigation .....	7-5
Methodology .....	7-5
Review of literature .....	7-5
Data sources .....	7-5

# CONTENTS—Continued

	<i>Page</i>
Chapter 7—Continued	
Industry profile and structure .....	7-6
Brief evolution of the industry .....	7-6
Industry size and structure .....	7-7
Growers .....	7-7
Extractors .....	7-7
Competitive factors .....	7-7
Brazilian and U.S. industry views .....	7-7
Questionnaire data and International Trade Commission analysis .....	7-8
Industry performance in world and U.S. markets .....	7-9
Market performance—trend analysis .....	7-9
Domestic shipments and prices .....	7-9
FCOJ producer prices and shipments .....	7-9
Orange production, prices, and profitability .....	7-11
Quantity and prices of subject imports .....	7-13
U.S. industry market share .....	7-16
U.S. consumption .....	7-16
Employment, capacity, and costs of producers and downstream purchasers .....	7-18
Estimates of economic effects .....	7-18
Time series analysis .....	7-18
Hypothesis tested .....	7-18
Results .....	7-20
Computable partial equilibrium analysis .....	7-22
Effects of unfair trade practices .....	7-22
Price elasticity of aggregate demand .....	7-22
Elasticity of substitution .....	7-23
Elasticity of domestic supply .....	7-23
Economic effects of unfair trade practices .....	7-24
Effects of remedy .....	7-24
Elasticity of import supply .....	7-24
Economic effects of the remedy .....	7-24
Chapter 8. Lamb Meat .....	8-1
History of title VII investigations .....	8-1
Scope of investigation .....	8-4
Subject products .....	8-4
Substitute products .....	8-4
Domestic industry .....	8-4
Description of upstream industry .....	8-5
Description of downstream industry .....	8-5
Approach of investigation .....	8-5
Methodology .....	8-5
Data sources .....	8-6
Industry profile and structure .....	8-6
Brief evolution of the industry .....	8-6
Industry size and structure .....	8-7
Growers .....	8-7
Packers .....	8-8
Production costs and profitability .....	8-9
Lamb meat packers .....	8-9
Live lamb sector .....	8-9

# CONTENTS—Continued

	<i>Page</i>
Chapter 8—Continued	
Competitive factors .....	8-9
Industry performance in U.S. and world markets .....	8-13
U.S. lamb meat production .....	8-13
U.S. lamb production .....	8-14
World production .....	8-14
Market performance—trend analysis .....	8-15
Domestic prices .....	8-15
Imports: quantity and prices .....	8-17
Employment and labor use in packing sector .....	8-17
Impact on downstream industry .....	8-20
Estimates of economic effects .....	8-20
Time series analysis .....	8-20
Hypothesis tested .....	8-20
Data sources .....	8-20
Estimation method .....	8-22
Results .....	8-22
Analysis of the events of June 1985-March 1990 .....	8-22
U.S. supply of domestically produced lamb .....	8-24
U.S. demand for domestically produced lamb .....	8-24
U.S. demands for New Zealand and Australian lamb .....	8-25
Computable partial equilibrium analysis .....	8-25
Estimated impact on the affected domestic industry and import markets .....	8-25
Price elasticity of U.S. supply .....	8-25
Own-price elasticity of U.S. demand .....	8-26
Substitution elasticities .....	8-27
Own-price elasticity of import supply .....	8-27
Shares and other CPE input information .....	8-27
Effects of subject 1995 subsidized imports (from New Zealand) relative to fair-trade conditions .....	8-28
Effects of the remedy placed on subject subsidized imports relative to fair trade conditions .....	8-29
Effects of the remedy placed on subject subsidized imports relative to prevailing base year conditions .....	8-29
Chapter 9. EPROMS .....	9-1
History of title VII investigation .....	9-1
Scope of investigation .....	9-2
Subject product .....	9-2
Like product .....	9-3
Substitute products .....	9-3
Description of upstream industries .....	9-3
Description of downstream industries .....	9-3
Approach of investigation .....	9-3
Methodology .....	9-4
Industry profile and structure .....	9-7
Brief evolution of the world industry .....	9-7
U.S. industry size and structure .....	9-7
Industry performance in U.S. and world markets .....	9-7
Other competitive factors .....	9-10
Life cycle for each EPROM generation .....	9-10

# CONTENTS—Continued

	<i>Page</i>
Chapter 9—Continued	
Industry concentration .....	9-12
Barriers to entry .....	9-12
Market performance .....	9-14
Shipments and prices .....	9-14
Imports .....	9-17
Exports .....	9-17
Consumption .....	9-18
Profitability .....	9-19
Capital expenditures and research and development .....	9-19
Capacity utilization .....	9-20
Employment .....	9-21
Estimates of economic effects .....	9-21
Hedonic price index analysis .....	9-21
Hypotheses tested .....	9-21
Data availability and sources .....	9-22
Results .....	9-23
Computable partial equilibrium analysis .....	9-23
Effects of unfair trade practices .....	9-25
Effects of remedy .....	9-26
Net welfare effects .....	9-27
Chapter 10. Color television picture tubes	10-1
History of title VII investigations .....	10-1
Scope of investigation .....	10-3
Subject products .....	10-3
Substitute products .....	10-3
Description of upstream industry .....	10-3
Description of downstream industry .....	10-5
Approach of investigation .....	10-7
Methodology .....	10-7
Data sources .....	10-7
Industry profile .....	10-7
Size and structure of industry .....	10-7
Employment .....	10-9
Industry performance in U.S. and world markets .....	10-9
Market performance .....	10-9
Domestic shipments and prices .....	10-9
Subject imports; quantity and prices .....	10-9
U.S. exports .....	10-14
Domestic consumption and downstream demand .....	10-14
Estimates of economic effects .....	10-14
Time series analysis .....	10-14
Hypotheses tested .....	10-14
Data sources .....	10-16
Results .....	10-17
Computable partial equilibrium analysis .....	10-18
Effects of unfair trade practice .....	10-20
Effects of remedy .....	10-21
Net welfare effects .....	10-21

# CONTENTS—Continued

	<i>Page</i>
Chapter 11. Urea .....	11-1
History of title VII investigations .....	11-1
Scope of investigations .....	11-2
Subject products .....	11-2
Like product .....	11-2
Substitute products .....	11-2
Description of upstream industry .....	11-3
Description of downstream industry .....	11-3
Approach of investigation .....	11-3
Industry profile and structure .....	11-4
Brief evolution of the industry .....	11-4
Industry size and structure .....	11-4
U.S. production .....	11-4
Concentration ratios .....	11-4
World production .....	11-6
Industry performance in U.S. and world markets .....	11-7
Trade patterns .....	11-7
Import penetration .....	11-7
Capacity utilization .....	11-7
Selected costs of production and profitability .....	11-7
Financial experience of U.S. producers .....	11-7
Operations on urea .....	11-7
Employment .....	11-10
Market performance—trend analysis .....	11-10
Domestic shipments and prices .....	11-10
Trends in prices .....	11-10
Trends in shipments .....	11-12
Subject imports: quantity and prices .....	11-12
U.S. industry market share .....	11-14
Substitute products; quantity and prices .....	11-14
Downstream demand and domestic consumption .....	11-14
Domestic consumption .....	11-14
Downstream demand for agricultural crops .....	11-16
Estimates of economic effects .....	11-18
Time series analysis .....	11-18
Hypothesis tested .....	11-18
Data sources .....	11-18
Results .....	11-19
Computable partial equilibrium analysis .....	11-21
Effect of unfair trade practices .....	11-22
Effects of remedies .....	11-23
Net welfare effects .....	11-23
Chapter 12. Brass sheet and strip .....	12-1
History of title VII investigations .....	12-1
Scope of investigation .....	12-2
Subject products and manufacturing process .....	12-2
Description of upstream industry .....	12-4
Description of downstream industry .....	12-4
Substitute products .....	12-5

# CONTENTS—Continued

	<i>Page</i>
Chapter 12—Continued	
Approach of investigation .....	12-5
Methodology .....	12-5
Data sources .....	12-6
Industry profile and structure .....	12-6
Industry evolution and structure .....	12-6
Industry size .....	12-6
Competitive factors .....	12-7
Domestic consumption factors .....	12-8
Market performance - trend analysis .....	12-9
Domestic shipments and prices .....	12-9
Subject imports; quantity and prices .....	12-11
U.S. industry market share .....	12-14
Sales, costs, profitability, capital expenditures, and employment .....	12-15
Estimates of economic effects .....	12-17
Time series analysis .....	12-17
Hypothesis tested .....	12-17
Data sources .....	12-19
Results .....	12-19
Computable partial equilibrium analysis .....	12-21
Effects of unfair trade practices .....	12-23
Effects of remedies .....	12-24
Net welfare effects .....	12-24
Effects on brass sheet and strip industry and upstream industries .....	12-24
Effects on downstream industries and end users .....	12-25
Chapter 13. Standard welded steel pipes and tubes .....	13-1
History of title VII investigations .....	13-1
Scope of investigations .....	13-4
Subject products .....	13-4
Substitute products .....	13-5
Description of upstream industry .....	13-5
Description of downstream industry .....	13-5
Approach of the investigation .....	13-7
Methodology .....	13-7
Data sources .....	13-7
Industry profile and structure .....	13-7
Brief evolution of the industry .....	13-7
Industry size and structure .....	13-8
Competitiveness factors .....	13-8
Integrated and nonintegrated companies .....	13-8
Effect of upstream product prices on profitability .....	13-10
Investment and research .....	13-11
Market performance—trend analysis .....	13-11
Domestic shipments .....	13-11
Imports and exports .....	13-12
Subject import prices .....	13-14
U.S. industry market share .....	13-15
Substitute price trends .....	13-15
Profitability .....	13-17
Employment compensation and productivity .....	13-18

# CONTENTS—Continued

	<i>Page</i>
Chapter 13—Continued	
Estimates of economic effects .....	13-18
Time series analysis .....	13-18
Hypothesis tested .....	13-18
Data sources .....	13-20
Results .....	13-20
Computable partial equilibrium analysis .....	13-22
Effects of unfair trade practices .....	13-23
Effects of remedies .....	13-23
Net welfare effects .....	13-24
Chapter 14. Bearings .....	14-1
History of title VII investigations .....	14-1
Scope of investigation .....	14-5
Subject and substitute products .....	14-5
Description of upstream industry .....	14-8
Description of downstream industry .....	14-8
Approach of investigation .....	14-11
Methodology .....	14-11
Data sources .....	14-11
Industry profile and structure .....	14-11
Industry size and structure .....	14-11
Competitiveness factors .....	14-13
Employment and wages .....	14-14
Materials .....	14-16
Investment and research and development .....	14-16
Profitability .....	14-18
Export barriers .....	14-19
Market performance—trend analysis .....	14-19
Domestic shipments and prices .....	14-19
Subject imports: quantity, prices, and market share .....	14-22
Tapered roller bearings .....	14-22
Ball bearings .....	14-26
Estimates of economic effects .....	14-32
Time series analysis .....	14-32
Hypotheses tested .....	14-32
Data sources .....	14-32
Results .....	14-33
Tapered roller bearings .....	14-33
Ball bearings .....	14-36
Computable partial equilibrium analysis .....	14-36
Effects of unfair trade practices .....	14-38
Effects of remedies .....	14-40
Net welfare effects .....	14-40
Upstream and downstream effects .....	14-41
Unfair trade practices .....	14-41
Remedies .....	14-44

# CONTENTS—Continued

	<i>Page</i>
<b>Figures</b>	
5-1 The simple market: Perfect substitutes .....	5-12
5-2 Impact of unfair trade practices on upstream industries .....	5-14
5-3 Impact of unfair trade practices on downstream industries .....	5-14
6-1 FCOJ: U.S. production and Brazilian imports by quantity and price, 1979-94 .....	6-5
6-2 Lamb meat, fresh, chilled, or frozen: U.S. production, subject New Zealand imports and non-subject Australian imports, by month, January 1984 to May 1994 .....	6-7
6-3 EPROMs: U.S. shipments and subject imports, by quantity and price, 1983-89 .....	6-9
6-4 CPTs: U.S. shipments and imports, by quantity and price, 1982-93 .....	6-10
6-5 Solid urea: U.S. shipments and imports by quantity and price, 1981-91 .....	6-12
6-6 Brass sheet and strip: U.S. shipments and imports by quantity and unit value, 1983-91 .....	6-13
6-7 Welded standard pipe: U.S. shipments and imports by quantity and unit value, 1982-93 .....	6-15
6-8 Tapered roller bearings: U.S. shipments and subject imports by quantity and unit values, 1983-93 .....	6-17
6-9 Ball bearings: U.S. shipments and subject imports by quantity and unit values, 1983-93 .....	6-18
7-1 Processed oranges: Distribution, by types .....	7-4
7-2 FCOJ: U.S. bulk prices and U.S. production, 1978/79-1993/94 .....	7-11
7-3 Oranges: Bearing acreage for Florida oranges and average price for oranges used in FCOJ, 1978/79-1993/94 .....	7-12
7-4 FCOJ: U.S. imports from Brazil, 1978/79-1993/94 .....	7-14
7-5 FCOJ: U.S. imports from Brazil as a share of total quantity of U.S. imports, 1978/79-1993/94 .....	7-14
7-6 FCOJ: U.S. bulk domestic price and U.S. import price from Brazil, 1979 to 1994 .....	7-15
7-7 FCOJ: U.S. domestic production and imports from Brazil as a share of total availability, 1978/79-1993/94 .....	7-17
7-8 FCOJ: Total U.S. consumption, 1978/79-1993/94 .....	7-17
7-9 Monthly retail orange juice scanner prices, 1987-94 .....	7-19
8-1 Sheep and meat of sheep: Structure of the U.S. industry .....	8-8
8-2 Choice/prime lamb carcass price by month, January 1982-September 1994 .....	8-10
8-3 Lamb meat, fresh, chilled, or frozen: U.S. imports from Australia and New Zealand, by months, January 1981-May 1994 .....	8-11
8-4 U.S. lamb meat: Average annual production and choice lamb carcass price, 1982-93 .....	8-12
8-5 Choice slaughter lamb price, San Angelo, by month, 1982-93 .....	8-18
8-6 Lamb meat: U.S. apparent consumption by imports and domestic shipments, 1982-93 .....	8-19
9-1 EPROMs: Nonvolatile MOS memory product market shares, by types, 1982-92 .....	9-4
9-2 EPROMs: Principal U.S. markets, by end-user sectors, 1986 .....	9-5
9-3 EPROMs: EPROM and computer shipments, 1983-93 .....	9-5
9-4 EPROMs: Quantity of world shipments, by quarters, 1983-93 .....	9-9
9-5 EPROMs: Value of world shipments, by quarters, 1983-93 .....	9-9
9-6 EPROMs: Quantity (in bits) of world shipments, by quarters, 1983-93 .....	9-9
9-7 EPROMs: U.S. EPROM shipments by densities, 1983-89 .....	9-11
9-8 EPROMs: U.S. firms' shares of world production, by product generation and by life cycle periods .....	9-11
9-9 EPROMs: Herfindahl-Hirschman indexes for world industry .....	9-13
9-10 EPROMs: Price indexes for EPROMs, 1983-93 .....	9-16
9-11 EPROMs: EPROM shipments as a share of all IC shipments, by units and by dollars, 1983-93 .....	9-18



# CONTENTS—Continued

	<i>Page</i>
<b>Figures—Continued</b>	
10-1 Average screen sizes of domestic CPTs, 1982-93 .....	10-4
10-2 Sales to dealers of portable CTVs, by screen size, 1985-94 .....	10-6
10-3 Structure of U.S. color television picture tube industry .....	10-8
10-4 Quantity and average unit value for imported CPTs, 1982-93 .....	10-12
10-5 Subject imports as percent of total imports of CPTs, 1982-93 .....	10-13
11-1 Urea: United States East Germany, Romania, and USSR production, 1981-91 .....	11-6
11-2 Urea: U.S. exports, imports, and trade balance, 1981-91 .....	11-8
11-3 Solid urea: U.S. prices, quarterly, January 1981-December 1991 .....	11-12
11-4 Solid urea: Domestic shipments, annually, published source and questionnaire responses, 1981-91 .....	11-13
11-5 Urea: U.S. import quantity from East Germany, Romania, USSR, total subject imports, and total imports, 1981-91 .....	11-13
11-6 Solid urea: U.S. industry market share, 1981-91 .....	11-15
11-7 U.S. farm prices of the major nitrogenous fertilizers, semiannually, March 1981-October 1991 .....	11-15
11-8 U.S. consumption of the major nitrogenous fertilizers, annually, 1981-91 .....	11-16
11-9 U.S. farm prices of corn, wheat, cotton, and rice, annually, 1981-91 .....	11-17
12-1 Brass sheet and strip, C20000-series: Indexes of U.S. consumption, motor vehicle production, machinery and computer production, and building construction, 1983-91 .....	12-10
12-2 Brass sheet and strip, C20000-series: U.S. shipments, total imports, and import share of consumption, 1983-91 .....	12-11
12-3 Brass sheet and strip, C20000-series: Average unit value of nontoll U.S. shipments, average landed, duty-paid unit value of imports, and average unit metal composite cost, 1983-1991 .....	12-13
13-1 New construction and standard pipe shipments, 1982-92 .....	13-6
13-2 Unit value of domestic shipments of welded standard pipe and hot-rolled coil, 1982-93 .....	13-10
13-3 Welded standard pipe and substitutes: Domestic shipments, 1982-93 .....	13-12
13-4 Welded standard pipe: Domestic operating rate by quarters, 1980-94 .....	13-13
13-5 Welded standard pipe: U.S. imports from selected sources, by value, 1982-93 .....	13-13
13-6 Welded standard pipe: U.S. imports from selected sources, by unit values, 1982-93 .....	13-14
13-7 Welded standard pipe: U.S. importers' share of domestic consumption, by quantity, 1982-93 .....	13-15
13-8 Welded standard pipe: Unit value of domestic shipments and U.S. imports, 1982-93 .....	13-16
13-9 Welded standard pipe: Domestic shipments and U.S. imports, by quantity, 1982-93 .....	13-16
13-10 Welded standard pipe and substitutes: Unit value of U.S. domestic shipments, 1982-93 .....	13-17
14-1 Apparent U.S. consumption of tapered roller bearings and ball bearings, and U.S. producers' shipments of durable goods, 1983-93 .....	14-9
14-2 Capital expenditures for bearings by the Timken Co. and U.S. domestic shipments of tapered roller bearings, 1983-93 .....	14-17
14-3 Capital expenditures by U.S. producers of ball bearings and by the Ball and Roller Bearings Industry (SIC 3562), and U.S. domestic shipments of ball bearings, 1983-93 .....	14-17
14-4 Financial performance of the U.S. ball bearings industry: Ratios of gross profit to net sales and net profit to net sales, 1985-91 .....	14-18
14-5 Tapered roller bearings and ball bearings: U.S. domestic shipments and U.S. producers' shipments of durable goods, 1983-93 .....	14-20
14-6 Tapered roller bearings and ball bearings: U.S. unit values, 1983-93 .....	14-20
14-7 U.S. producer price indexes for SIC 3562, Ball and Roller Bearings, tapered roller bearings, and ball bearings, quarterly, 1986-90 .....	14-21

# CONTENTS—Continued

Page

## Figures—Continued

14-8	Tapered roller bearings: Total imports, subject imports, nonsubject imports, U.S. domestic shipments, and U.S. producers' shipments of durable goods, 1983-93 .....	14-23
14-9	Tapered roller bearings: U.S. shipments, total imports, and subject imports, by quantity, 1983-93 .....	14-23
14-10	Tapered roller bearings: Unit values of U.S. shipments, total imports, and subject imports, 1983-93 .....	14-24
14-11	Tapered roller bearings: Total imports, subject imports, and nonsubject imports as a share of apparent U.S. consumption, 1983-93 .....	14-24
14-12	Ball bearings: U.S. producers' shipments of durable goods, total imports, subject imports, and nonsubject imports, 1983-93 .....	14-27
14-13	Ball bearings: U.S. domestic shipments, total imports, and subject imports, by quantities, 1983-93 .....	14-27
14-14	Ball bearings: U.S. domestic shipments, total imports, subject imports, and nonsubject imports, 1983-93 .....	14-28
14-15	Ball bearings: Unit values of domestic shipments, subject imports, and nonsubject imports, 1983-93 .....	14-30
14-16	Ball bearings: U.S. total imports and subject imports as a share of apparent U.S. consumption, 1983-93 .....	14-31

## Tables

6-1	Investigation 332-344: Overview statistics for case studies .....	6-2
7-1	FCOJ: World production, by specified sources, crop years 1978/79-1993/94 .....	7-10
7-2	FCOJ: U.S. and Brazilian exports, 1978/79-1992/93 .....	7-10
7-3	Florida oranges: Bearing and nonbearing acreage and yield per acre, crop years 1978/79-1993/94 .....	7-12
7-4	FCOJ: Case model coefficients of demand for U.S.-produced FCOJ and for imports from Brazil .....	7-21
7-5	FCOJ: Assumed values for computable partial equilibrium analysis, crop year 1984/85 .....	7-23
7-6	FCOJ: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1984/85 .....	7-25
8-1	Lamb meat from New Zealand: Chronology of events related to U.S. Department of Commerce (ITA) countervailing duty investigation—final results of countervailing duty administrative review .....	8-2
8-2	Lamb: U.S. commercial lamb slaughter, average carcass weight, and lamb meat production, 1982-93 .....	8-13
8-3	Sheep and lambs: U.S. ewes kept, lambing rate, and lamb crop, Jan. 1 of 1982-93 .....	8-14
8-4	Lamb carcass price, choice-prime, East Coast, 55-65 lbs., by months, January 1981-September 1994, and annual average .....	8-16
8-5	Fresh, chilled, or frozen lamb meat: U.S. production, imports for consumption, and apparent U.S. consumption, 1982-93 .....	8-17
8-6	Lamb meat packers: Average number of production and related workers in U.S. establishments, hours worked and total compensation paid to such employees, 1984-91 .....	8-19
8-7	Lamb meat: Economic coefficient estimates of supply and demand, with related T-statistics .....	8-23
8-8	Partial equilibrium analysis for lamb: Assumed values of input variables, 1985 .....	8-26
8-9	Lamb meat: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1985 .....	8-28

# CONTENTS—Continued

	<i>Page</i>
<b>Tables—Continued</b>	
9-1 EPROMs: World industry time line, 1971-present .....	9-8
9-2 EPROMs: World-leading EPROM producers, and shares of unit production, 1983, 1986, 1989, and 1992 .....	9-10
9-3 EPROMs: U.S. domestic shipments, exports, imports, and apparent consumption, 1983-89 .....	9-15
9-4 EPROMs: U.S. producers' combined sales; cost of goods sold; gross profit; selling, general, and administrative expenses; and operating income, 1983-89 .....	9-20
9-5 EPROMs: U.S. producers' capital expenditures and research and development expenses, 1983-89 .....	9-20
9-6 EPROMs: Coefficients of hedonic price equations and related statistics .....	9-24
9-7 EPROMs: Computable partial equilibrium analysis for EPROMs, assumed values of input variables, 1985 .....	9-25
9-8 EPROMs: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1985 .....	9-26
10-1 Color picture tubes: U.S. shipments, imports, exports, and apparent consumption, 1982-93 .....	10-10
10-2 Color picture tubes: U.S. imports by specified countries, 1982-93 .....	10-11
10-3 Color picture tubes: U.S. exports, to Mexico and all other countries, 1982-93 .....	10-15
10-4 Color picture tube case model: Coefficients of supply and demand and related t-statistics .....	10-17
10-5 Computable partial equilibrium analysis for color picture tubes: Assumed values of input variables, 1986 .....	10-19
10-6 CPTs: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1986 .....	10-20
11-1 Urea: U.S. industry acquisitions and closures, 1981-91 .....	11-5
11-2 Urea: U.S. capacity, production, and capacity utilization, 1981-91 .....	11-8
11-3 Urea: Operations and selected costs of producers, accounting years 1981-91 .....	11-9
11-4 Average number of production and related workers employed in the establishments in which urea is produced, hours worked, wages paid, and hourly wages, 1981-91 .....	11-11
11-5 Total acres planted for corn, wheat, cotton, and rice, 1981-91 .....	11-17
11-6 Urea: Coefficients of regressions and related t-statistics, quarterly, 1981-91 .....	11-20
11-7 Partial equilibrium analysis for urea: Assumed values of input variables, 1985 .....	11-21
11-8 Urea: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1985 .....	11-22
12-1 Brass sheet and strip: Key dates in trade cases .....	12-2
12-2 Brass sheet and strip: Countervailing and antidumping duty orders .....	12-3
12-3 Brass sheet and strip: Department of Commerce countervailing duty and antidumping administrative reviews .....	12-4
12-4 Restructuring in primary brass mill industry, 1983-93 .....	12-7
12-5 Brass sheet and strip: Japanese, German, and U.S. production, 1983-87 .....	12-8
12-6 Brass sheet and strip, C20000-series: Apparent U.S. consumption, domestic shipments, U.S. producers' share of apparent U.S. consumption, and average unit values of domestic shipments, 1983-91 .....	12-12
12-7 Brass sheet and strip, C20000-series: Apparent U.S. consumption, U.S. imports, and import share of apparent U.S. consumption, 1983-91 .....	12-14
12-8 Brass sheet and strip, C20000-series: Average unit value of domestic shipments of U.S. producers and average landed, duty-paid unit value of U.S. imports, 1983-91 .....	12-15
12-9 Brass sheet and strip, C20000-series: Financial results and capital expenditures, 1983-91 .....	12-16
12-10 Brass sheet and strip, C20000-series: Domestic employment and related information for production workers, 1983-91 .....	12-17

# CONTENTS—Continued

	<i>Page</i>
<b>Tables—Continued</b>	
12-11 U.S. brass sheet and strip market demand: Time series estimates of coefficients and related t-statistics .....	12-20
12-12 Brass sheet and strip industry: Values of principal input variables for computable partial equilibrium analysis .....	12-22
12-13 Brass sheet and strip industry: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1985 .....	12-23
13-1 Standard welded pipes: Commission antidumping and countervailing duty investigations, by subject countries .....	13-2
13-2 Standard welded pipes: Outstanding AD and CVD orders for determinations and administrative reviews .....	13-3
13-3 Standard welded pipes: AD and CVD duties collected as a share of subject imports, 1991-93 .....	13-4
13-4 Carbon steel flat hot-rolled products, total market, 1990-91 .....	13-6
13-5 Standard welded pipes: U.S. producers' shipments, U.S. imports, U.S. exports, U.S. apparent consumption, and importers' share, 1982-93 .....	13-9
13-6 Standard welded pipes: U.S. producers' sales, operating income, and ratio of operating income to sales, by types of firms, 1989-91 .....	13-9
13-7 Standard welded pipes: Capital expenditures and research and development, 1989-91 .....	13-11
13-8 Standard welded pipes: Producers' financial information, 1989-91 .....	13-18
13-9 U.S. standard pipe producers' sales and operating income for welded standard steel pipe and line pipe, 1989-91 .....	13-19
13-10 Standard welded pipe: Results of time series analysis (coefficients of demand and supply) .....	13-21
13-11 Standard welded pipes: Computable partial equilibrium analysis; assumed values of input variables, 1986 .....	13-23
13-12 Standard welded pipes: Results of computable partial equilibrium analysis (estimated effect on U.S. market of unfair trade practices and remedies), base year 1986 .....	13-24
14-1 Tapered roller bearing and antifriction bearings (other than tapered roller bearings) investigations covered by the case study, by sources, 1986 and 1988 .....	14-2
14-2 Final AD order and final administrative review cash deposit rates for tapered roller bearings, by sources, May 1987-January 1994 .....	14-4
14-3 Final AD and CVD order and final administrative review cash deposit rates for antifriction bearings (other than tapered roller bearings), by investigation type, product, source, original respondents, and by review .....	14-6
14-4 Tapered roller bearings and ball bearings industries, by major producers, before and after duty orders .....	14-13
14-5 Average number of total employees and production and related workers in U.S. establishments wherein tapered roller bearings are produced, hours worked, wages and total compensation paid to such employees, and hourly wages, by products, 1983-91 .....	14-14
14-6 Average number of total employees and production and related workers in U.S. establishments wherein ball bearings and cylindrical roller bearings are produced, hours worked, wages and total compensation paid to such employees, and hourly wages, by products, 1985-91 .....	14-15
14-7 Tapered roller bearings: U.S. imports for consumption, by subject and nonsubject sources, 1983-93 .....	14-25
14-8 Tapered roller bearings: Average AD duty rates on imports from subject sources, 1991-93 .....	14-26

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# CONTENTS—*Continued*

*Page*

## **Tables—*Continued***

14-9	Ball bearings: U.S. imports for consumption, by subject and nonsubject sources, 1983-93 .....	14-29
14-10	Ball bearings and antifriction bearings (other than tapered roller bearings) and cylindrical rollerbearings: Average AD/CVD duty rates on imports from subject sources, 1991-93 .....	14-30
14-11	Tapered roller bearings: Coefficients of filing and remedy variables .....	14-34
14-12	Radial ball bearings: Coefficients of filing and remedy variables .....	14-35
14-13	Computable partial equilibrium analysis for tapered roller bearings: Assumed values of input variables, 1985 .....	14-37
14-14	Computable partial equilibrium analysis for ball bearings: Assumed values of input variables, 1987 .....	14-38
14-15	Tapered roller bearings: Results of computable partial equilibrium analysis (estimated effects on the U.S. market of unfair trade practices and remedies), base year 1985 .....	14-39
14-16	Ball bearings: Results of computable partial equilibrium analysis (estimated effects on the U.S. market of unfair trade practices and remedies), base year 1987 .....	14-39
14-17	Computable general equilibrium analysis for tapered roller bearings: Estimated effects of the dumping and the AD remedy on U.S. domestic employment and output .....	14-42
14-18	Computable general equilibrium analysis for ball bearings: Estimated effects of the dumping and the AD remedy on U.S. domestic employment and output .....	14-43



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# CHAPTER 5

## The Case Study Methodology: The Economics of Dumping and Subsidization of Imports and Remedies

### Introduction

This chapter consists of two sections. The first section reviews the literature on the economics of dumping and subsidization of imports and their remedies.<sup>1</sup> The second section presents this study's methodology for analyzing the economic effects of unfair trade practices (in the form of dumping and subsidization of imports) and remedies (in the form of AD and CVD orders) on selected industries in chapters 7 to 14.

### Review of Economic Literature<sup>2</sup>

#### *The Economic Rationale for Dumping and Subsidization of Imports*

#### The Economic Rationale for Dumping

Dumping has various economic definitions, as well as a legal definition. In economic terms, dumping is commonly used to describe a firm selling its goods at a lower price in the export market than in its own domestic market—traditional price discrimination. The origin of this argument is often attributed to Viner

(1923), who observed that profit-maximizing prices were likely to be higher in home markets than abroad, under the reasonable assumption that home markets tend to be relatively more protected for home producers than are foreign markets.<sup>3</sup>

A second rationale for dumping is predatory pricing; lowering prices to harm and ultimately eliminate competitors or to enforce a cartel. This concept seems straightforward. However, whether predatory pricing is rational behavior or even occurs has been a source of controversy in the economics literature. Early economists (Viner (1931), Haberler (1936)) contend that predatory pricing as a motivation for dumping should be a rare event. More recent game theoretical papers on predatory pricing in general corroborate their analysis by showing that predatory pricing is profitable only under strict conditions that would enable future supra-competitive profits to offset the certain losses in the near term.<sup>4</sup> On the other hand, Hartigan (1994a) notes that a foreign firm may engage in predatory pricing in a world of incomplete

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<sup>3</sup> This argument also assumes a competitive structure other than perfect competition. For a thorough recent review of how this theory may operate in the current global marketplace, with specific examination of certain Japanese industries, see Marion (1993).

<sup>4</sup> For a discussion of antitrust treatment of predation (and how economists have analyzed this issue), see Scherer and Ross (1990), pp. 468-479. The Supreme Court has confirmed the small likelihood of success in such a case in *Zenith Radio Corp. v. Matsushita Elec. Ind. Co.* 475 U.S. 574 (1986). Compare Jeffrey Garten, "New Challenges in the World Economy: The Antidumping Law and U.S. Trade Policy," remarks before the U.S. Chamber of Commerce, Apr. 7, 1994, esp. pp. 3-13. Also, "Prehearing brief of Dewey Ballentine," before the U.S. International Trade Commission, Sept. 13, 1994, esp. pp. 5-11.

<sup>1</sup> The review of literature specific to the industries analyzed in this study is addressed in each case study analysis in chapters 7 to 14 in part III below.

<sup>2</sup> An alphabetical list at the end of this chapter contains sources cited by chapter 5.

and asymmetric information; the foreign firm may induce exit by the home firm by acting like a low-cost competitor regardless of its actual costs. Empirical work on predatory pricing has been ambiguous as well.<sup>5</sup>

In the 1970s, as most industrialized countries moved to floating exchange rates, "exchange dumping," a lagged response of exporters to currency fluctuations, has appeared as an explanation for dumping (Wares, 1977). For example, in response to a depreciation of the dollar against the yen, the price of Japanese imports quoted in dollars would fall in yen terms as compared to home sales (in Japan) until these prices can be readjusted; meanwhile, dumping will be observed. Palmetier (1988) maintains that spurious claims of dumping can arise from inappropriate usage of exchange-rate adjustments, while Feinberg (1989) provides evidence of the importance of exchange-rate fluctuations in leading to dumping petitions.

The rapid advancement of theoretical industrial organization in the past decade and its application to international economics has lead to several new rationales for dumping. Ethier (1982) focuses on the role of demand uncertainty and the difficulty of reallocating inputs across manufacturing sectors of an economy in leading to cost-based dumping of a type sometimes referred to as "cyclical dumping." Hillman and Katz (1986) likewise focus on demand uncertainty and illustrate that the nature of the uncertainty faced in the exporter's home market may influence the likelihood of dumping.

Brander and Krugman (1983) introduced the term "reciprocal dumping" to explain the common practice of trade between developed nations in similar goods (intraindustry trade), often accompanied by claims of dumping in both directions. From each firm's perspective, demand in a foreign market is more price-elastic than in its domestic market, leading to lower prices (or equal prices, but absorbing transport costs) abroad than at home. While reciprocal dumping leads to wasteful cross-hauling, net welfare benefits can occur from increased competition in each market.

Gruenspecht (1988b) and Dick (1991) focus on "dynamic scale economies" (or "learning curve" effects) and note that the current static unit cost may overstate the relevant marginal cost of an extra unit of

output. Since expanding output today may move the firm down the learning curve and reduce next period's average and marginal costs, an exporter will be dumping as its price (based on the true lower marginal cost incorporating future benefits) will be less than the measured unit cost.<sup>6</sup>

Anderson (1992, 1993) and Clarida (1993) present more novel views of dumping. Anderson stresses that since many AD petitions are resolved through settlements as voluntary export restraints (VERs) and since quotas under VERs are often based on past exports, exporters may resort to dumping in order to expand their market shares in foreign markets if they expect some VERs (either directly or indirectly following an AD action). Clarida tries to explain the surge in dumping filings in the mid-1980s, a time when the dollar was very strong, and hence foreign firms should have been able to sell well in the United States without dumping. He proposes a model in which increased world demand for a product leads to a surge of new entry by firms of varying efficiency (and uncertainty about their true levels of efficiency). Price is driven down to the level dictated by the most efficient firms, with those who turn out *ex post* to be higher-cost exiting the industry eventually, but matching the price and dumping in the short-run (which may not be of trivial duration).

The legal definition of dumping arose from legislation in the early part of this century through the Antidumping Act of 1916 and the Antidumping Act of 1921, which was the predecessor to the current title VII of the Tariff Act of 1930.<sup>7</sup> As a result, the legal definition arising from these laws is based on the more traditional economic rationales for dumping—predatory pricing and price discrimination. The Antidumping Act of 1916 specifically required showing an intent to injure and made predatory dumping illegal, while making violators subject to criminal penalties, as well as civil damages. The 1916 Act has never been successfully invoked.<sup>8</sup>

<sup>6</sup> The case study on EPROMs in chapter 9 accounts for potential "learning curve" effects in its economic analysis, particularly in the time series econometric analysis. Other econometric studies of the learning curve effect in the semiconductor industry include Gruber (1994), Irwin and Klenow (1994), and Udayagiri and Balakrishnan (1993).

<sup>7</sup> Chapter 2 describes the administration of the current law (since the completion of the Uruguay Round Agreements Act in 1994) and the AD/CVD law in effect in the 1980's, when the cases selected for analysis in chapters 7 to 14 were filed.

<sup>8</sup> Victor (1983) gives a history of prosecutions under this Act. See also Knoll (1987).

<sup>5</sup> For examples see Isaac and Smith (1985), who cannot obtain predatory pricing in computer simulations even under conditions when theory suggests such an outcome is probable. On the other hand, Burns (1986) uses regression analysis to show that in cases when predatory pricing by the old American Tobacco Company was alleged from 1891 to 1906, the tobacco trust was able to purchase rivals at much lower acquisition costs.



On the other hand, title VII of the Tariff Act of 1930 deals much more broadly with injury to a domestic industry due to imports of goods sold at "less than fair value." U.S. trade laws do not require predatory intent. As discussed in chapter 2, dumping, or selling at "less than fair value," is legally defined as selling a product in the United States at a price which is lower than the price for which it is sold in the home market. This is the primary method of calculating dumping and seems closely related to the price discrimination rationale. Many of the more recent theories on why various situations cause exporters to "price-to-market" by manipulating profit margins on export sales can be viewed as forms of price discrimination. Thus, this method of calculating dumping can be seen to encompass numerous rationales for dumping in the theoretical literature. A secondary method of determining whether import goods are sold at less than fair value is to compare the U.S. price for export sales with third-country sales or, if necessary, a third method, a constructed value of the foreign firm's price for the foreign like product based on foreign firm's costs. The constructed value is calculated by adding manufacturing costs, selling, general, and administrative expenses, profit, and packaging costs.

An important distinction regarding the various economic rationales for dumping is that some reasons for dumping are consistent with a competitive environment in an industry, while others are not. In contrast, the legal definition makes no such distinction. According to professor Willig, certain forms of dumping are a natural part of a healthy market economy, yet are defined in international agreement as dumping and are subject to U.S. AD laws.<sup>9</sup> Predatory pricing, which is intended to drive out competitors, generally is agreed by all to have anticompetitive effects and should be corrected. However, other forms of selling at "less than fair value" (as currently determined by Commerce), including exchange-rate dumping described by Palmetier (1988) and Feinberg (1989), cost-based dumping caused by demand uncertainty as described by Ethier (1982) and Hillman and Katz (1986), learning curve effects described by Gruenspecht (1988b) and Dick (1991), as well as the strategic VER reactions given by Anderson (1992, 1993) and the influx of inefficient entrants notion of Clarida (1993), may be consistent with a competitive environment.

<sup>9</sup> Dr. Robert Willig's comments at the public hearing for this study drew this distinction among various economic rationales for dumping and formed the basis for the logic of this paragraph.

How often do AD cases involve forms of dumping that many economists would consider consistent with competition? Shin (1994) addresses this question with respect to the 282 AD investigations in the 1980's that resulted in non-negative outcomes.<sup>10</sup> Shin uses criteria developed in the antitrust literature to screen out the AD cases in her sample for which the industry characteristics are inconsistent with the hypothesis that AD duties are "protect[ing] competition from monopolization that could result from predatory-pricing dumping." (p. 84) For example, predatory pricing is unlikely to occur in unconcentrated industries. Thus, Shin screens out industries with a minimum Herfindahl-Hirschman index of 0.18 or greater.<sup>11</sup> Other screens include foreign seller concentration, changes in import penetration, and barriers to entry present in the domestic industry. Shin finds that 27 of the 282 cases (9.6 percent) could be consistent with dumping motivated by anticompetitive reasons on the part of foreign sellers.<sup>12</sup>

Given this contrast between dumping designed to injure competition and when the legal definition actually provides relief, a number of scholars have shifted attention away from why foreign exporters engage in dumping to why U.S. domestic industries seek enforcement of current U.S. AD law.<sup>13</sup> U.S. protection of any form is an entry barrier to the U.S. market, and entry barriers tend to reduce competition and raise profits for firms already present in the market. As a result, U.S. firms have an incentive to invest resources on using U.S. AD laws to garner protection. This "rent-seeking" or "directly unproductive, profit-seeking (DUP) activities," uses real resources to gain profits (or rents) at the expense

<sup>10</sup> In particular, this means that cases that were suspended or terminated, as well as cases that ended in affirmative determinations, were included in her sample.

<sup>11</sup> The Herfindahl-Hirschman index is the sum of the squared market shares of the firms in an industry. It equals one for an industry comprised of a single monopolist and approaches zero as the number of firms in the industry, each capturing the same share of the market, becomes very large.

<sup>12</sup> This result should be regarded with caution, as noted by Dr. Robert Willig at the public hearing for this study. Shin's result does not say that predatory pricing occurs in 9.6 percent of the cases she examines, but only that it cannot be ruled out as a possibility for those cases.

<sup>13</sup> A few references (among many possible) are Krueger (1974), Brock and Magee (1978), Bhagwati (1982), Finger et al. (1982), Becker (1983), and Baldwin (1985).

of others, rather than for producing goods and services; in other words, gaining a larger slice of the pie, without increasing the size of the pie. The role of rent-seeking in U.S. trade policy, including use of AD laws, has been a common focus for scholars looking at the political economy of protection.<sup>14</sup>

## The Economic Rationale for Export Subsidies

Motivations for export subsidies (or production subsidies that effectively support exports) are more straightforward than those for dumping. Mercantilist philosophies have always favored the promotion of export sales, focusing more on the volume of domestic production than on consumer welfare. Subsidies are a way to increase exports and, hence, domestic production.

In addition, it is sometimes argued that these subsidies are necessary to offset duties on imported inputs (duty drawbacks) or general domestic taxes that put exporters on unequal footing with its international competitors. There is little case for ruling duty drawbacks as an unfair trade practice, if the export subsidy only offsets the input tax in the foreign country. However, it is more ambiguous when foreign governments compensate their exporters for general domestic taxes. A high tax country may put its exporters at a relative disadvantage without such adjustments, but it is difficult to draw the line between "levelling the playing field" and giving unfair advantage relative to domestic producers in other (perhaps equally taxed) national markets.

The recent literature on strategic trade theory has provided more formal analysis of the motivations for export subsidies.<sup>15</sup> Brander and Spencer (1985) analyze strategic policy in a world of imperfect competition (in which price exceeds the marginal cost of exports), where two exporting countries compete in a third foreign market. They find that export subsidization by a government can increase its firm's market share and profits in this third market at the expense of the other country's firm, when the firms compete in quantities (a Cournot game).<sup>16</sup> However, this result is very sensitive to the assumptions of their model. For example, if the two firms compete in prices (a Bertrand game) with differentiated products, rather than competing in quantities, Gruenspecht (1988a) shows that an export tax (rather than an export subsidy) will raise profits for a country's

exporting firm. Thus, the optimal strategic government policy is very sensitive to the assumed oligopolistic structure of the export market.

Hartigan (1994b) finds that export subsidies can allow a firm to increase its output and market share in foreign markets, while a subsidy is in effect and even after it is removed, if there are "switching costs" to consumers of changing buying patterns. A similar argument is that subsidies to new industries enable them to lower costs through experience and to remain internationally competitive after the phase-out of the subsidy.

## *The Economic Effects of Dumped and Subsidized Imports and Remedies*

### Measurement of Economic Effects of Dumped and Subsidized Imports

The direct effect of dumping and subsidization of imports is lower import prices. Certain predictable economic effects follow. First, lower import prices usually harm the domestic producers of import-competing goods (in the terminology of the trade laws, the "like-product" industry). Second, they also provide at least short-run gains to consumers (including end users) in the home market. The difficult question is the size of these gains and losses and the possibility of long-run harm to consumers of the product in question. Measuring the magnitude of these effects depends on what the import price would be in the absence of the distortionary policy.

If dumping is simply price discrimination, the absence of discrimination is a unified (non-discriminatory) price. The non-discriminatory price will lie somewhere between the foreign firm's domestic price and the home import price. Determination of this price requires knowing the elasticities of demand and supply in the foreign firm's domestic market and the home import market, the shape of cost curves, and the foreign firm's distribution of production between its domestic

<sup>15</sup> There are redistributional elements to any subsidies; they must be paid by others in the economy. Political influences play a large role in identifying which sectors are to be favored by subsidies and there is a large economic literature dealing with this topic. For references, see footnote 12.

<sup>16</sup> Cournot and Bertrand games are common alternatives to model a rivalrous duopoly setting in modern industrial organization. For a further discussion, see Tirole (1990), pp. 209-234.

<sup>14</sup> For references, see footnote 13.

market and exports.<sup>17</sup> If dumping is cost-based, a "fair" import price would be at unit cost.<sup>18</sup> If dumping is viewed as predatory, the short-run predatory import-price reduction will benefit consumers and harm producers in the short run. If successful, home country firms will be driven out, foreign firms will attain monopoly power, and consumers must pay monopoly prices. If predation is unsuccessful, both home and foreign firms will be harmed, while consumers will have enjoyed lower prices during the period of predation. Finally, the price impacts of dumping are more ambiguous when the possibility of strategic interactions among oligopolistic firms in international competition are taken into account.

Turning to subsidies, the price effects depend on whether the subsidies in the foreign country are applied only to exports, to all domestic production in a particular industry, or to inputs utilized by that industry. Diamond (1989, 1990) discusses the economic underpinnings of countervailing duty law, while Bolnick and Litan (1991) and Francois et al. (1991) conclude that evaluation of these price impacts requires knowledge or estimates of price elasticities of demand and supply in both home and export markets, substitutability among inputs, and input and output shares.

The predicted effects of dumped and subsidized imports on industries upstream (input-providing) and downstream (end user, or consumer) to the like-product industry are straightforward. In general, these related sectors are affected in opposite directions: the upstream sectors are harmed along with the like-product industry, while downstream sectors benefit from lower prices.<sup>19</sup> The magnitude of gains or losses in these related sectors depends primarily on the substitutability among inputs and input and output shares between upstream and downstream sectors.

Economists have relied mainly on simulation models and, to a lesser extent, case studies to estimate the economic effects of dumping and subsidization. Perhaps the most comprehensive empirical study of dumping and subsidization to date is Morkre and Kelly (1994). They use a computable partial equilibrium (CPE) model to estimate the economic effects of dumping and subsidization in 174 AD/CVD

cases in the United States from 1980 to 1988.<sup>20</sup> Using final dumping margins calculated by Commerce to model the price effect of dumping and subsidization on import prices, their analysis begins with parameter estimates that tend to overestimate the effect of these unfair trade practices on the U.S. domestic industry. These initial upperbound estimates show domestic revenue falling by 10 percent or greater in only 18 of the 174 cases they study. In 50 of the cases the drop in revenue exceeds 5 percent.

Morkre and Kelly extend their analysis by examining the relationship between parameter values (such as demand and supply elasticities) and the magnitude of their estimated price and quantity changes. They show that in their model: (1) higher dumping/subsidy margins lead to larger reductions in "like-product" demand when fairly-traded imports are inelastic in supply and when demand for the general product category is price-inelastic; (2) higher market shares for unfairly-traded imports also imply greater contraction in "like-product" demand; and (3) increased substitutability between imports and the like-product implies greater contraction in like-product demand; and (4) distribution of the decline in like-product demand between price and quantity declines depends on the domestic price elasticity of supply.<sup>21</sup>

Morkre and Kelly only estimate price and quantity effects of dumping and subsidization on the U.S. domestic industry, but one advantage of simulation models is that they can detail many other economic effects at the same time. This is exemplified by Murray and Rousslang (1989), who examine four Commission cases and report changes in wages and employment, in addition to domestic price and output changes, due to unfair imports.<sup>22</sup> Of the four cases, they find the least harm to the domestic industry for oil country tubular goods from Canada and

<sup>17</sup> This discussion is particularly important with respect to the issue of pass-through in the case of remedies, as discussed below.

<sup>18</sup> See, several papers in Bolnick, Richard and Robert Litan, eds. *Down in the Dumps: Administration of Unfair Laws*, The Brookings Institution, Washington, DC, 1991.

<sup>19</sup> These effects on related sectors from dumping and subsidization may be reversed however, if dumping is predatory and leads to higher prices in the future.

<sup>20</sup> Morkre and Kelly's sample includes all AD and CVD cases with a negative or affirmative Commission final decision from 1980 to 1988 for which they had adequate data on margins and market shares.

<sup>21</sup> For relatively inelastic supply, most of the impact will be felt in terms of price reductions, for relatively elastic supply, price will be little-affected but domestic shipments will fall substantially.

<sup>22</sup> The four cases they examine are 1) certain brass sheet and strip from Brazil and Korea, 2) certain unfinished mirrors from Germany, Japan, Portugal, and the United Kingdom, 3) candles from the People's Republic of China, and 4) oil country tubular goods from Canada and Taiwan; recent cases at the time of the article.

Taiwan.<sup>23,24</sup> They estimate the greatest harm comes in the case of certain unfinished mirrors from Germany, Japan, Portugal, and the United Kingdom, where prices fall by 1.2 to 9.8 percent, output falls by 1.8 to 10.8 percent, and employment falls by 9.8 to 12.1 percent.

Huang et al. (1993) use a different type of simulation model to forecast economic effects of dumped boneless beef from the European Union (EU) on Canadian beef producers. Their model of 231 linked econometric equations allows estimation of the effects of many variables within a consistent framework, while at the same time generating necessary parameter estimates internally through econometric estimation. They find that an additional 22,000 tons of dumped "low-quality" beef onto the eastern Canadian market by the EU would lower the wholesale price of cow carcasses by 1.6 percent, with the retail price of low-quality beef decreasing by 0.8 percent. The technical problem with their methodology is that they estimate their equations via ordinary least-squares (OLS), which may ignore substantial simultaneity among variables.<sup>25</sup> In this respect, partial and general equilibrium simulation models have an advantage, since simultaneity is modeled directly. Huang et al. also note that their econometric-based simulation model requires relatively large data and time requirements compared with other methods of analysis.

## Measurement of the Economic Effects of Remedies

AD/CVD remedies are expected to raise unfairly traded import prices. However, like the dumping and subsidization practices they are intended to correct, the magnitude of the remedies' effect on import prices, import quantities, and domestic like-product shipments depends upon the elasticities of import

demand and supply and cross-price elasticities of demand (or alternatively, the relevant elasticities of substitution). An important issue with respect to remedies in this regard is pass-through. When a foreign firm's product is assessed an ad valorem duty, the foreign firm may not raise this duty-ridden price by the full amount of the duty; i.e., there may be only partial pass-through of the duty. This occurs when the foreign firm has some degree of market power. As discussed above, if the foreign firm is price discriminating between its own domestic market and exports to the home country, the price in the foreign domestic market may be adjusted so that only part of the duty is passed through to import prices in the home country. In addition, Feenstra (1989) shows that in an oligopoly setting, a foreign firm with increasing marginal costs will not fully pass-through an assessed duty.

Similar to estimating the effects of dumping and subsidization, economists have relied on simulation models to analyze the effects of AD/CVD remedies. In addition, case studies and econometric analysis have been used to analyze AD/CVD remedies. In CPE models, the relationship between the estimated effects of dumping and subsidization versus the effect of the remedy is directly related to the issue of pass-through. In the case of full pass-through, the remedy will exactly offset dumping and/or subsidization; i.e., the estimated effects of the remedy is of opposite sign, but exact magnitude, of the estimated effects of the unfair trade practices. This is true in general with the CPE analysis of Morkre and Kelly discussed above. However, for the five cases they estimate the effects of dumping and subsidization (or remedy) assuming partial pass-through and find that the estimated injury (or relief) to the domestic industry is smaller.<sup>26</sup>

One limitation of the CPE models discussed above is that they do not estimate the economic effects of AD/CVD remedies on upstream and downstream industries, since they model only the sector subject to an AD/CVD investigation (hence, the term "partial"). While little empirical work has been done in this regard with respect to AD or CVD remedies, Mendez (1986) uses input-output analysis to find fairly large short-run trade and employment effects of the steel VERs negotiated in the mid-1980s on steel-using

<sup>23</sup> In this case, domestic prices of tubular goods fall from 0.4 to 2.1 percent, output in the industry falls from 1.4 to 2.6 percent, industry wages fall from 1.7 to 3.5 percent, and its employment falls by 2.1 to 4.3 percent.

<sup>24</sup> They give a range to account for uncertainty with parameter estimates.

<sup>25</sup> OLS techniques specify a dependent variable as a function of exogenous, explanatory variables. However, if the dependent variable is an important explanatory variable for one or more of the exogenous variables or if the dependent variable and one or more of the "exogenous" variables are jointly determined by another common exogenous variable, serious simultaneity problems may arise and statistically bias the OLS estimates.

<sup>26</sup> Morkre and Kelly contend that full pass-through is an "extreme assumption" for most goods. However, they employ this assumption since it conforms with the rest of their analysis in providing an initial upperbound estimate of the effect of dumping and subsidization. Deriving an upperbound estimate is crucial to the point of their paper, since they conclude that estimated injury to the U.S. domestic industry from unfair trade practices is small in most cases, even when using upperbound estimates.