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U.S. Antidumping against Japanese Steel

by

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Master's Thesis
June 3, 2002

Supervisor: Yves Bourdet

Abstract

Dumping is generally considered an unfair practice and through the Antidumping Agreement of the GATT many governments offer protection to domestic producers against dumped goods. In 1992 and 1998 large amounts of **steel** entered the U.S. at low prices, and large amounts of antidumping investigations were initiated in order to curb the surge of imports flooding the country.

The increase in steel imports in 1992 was related to the laps of the voluntary export restraints, while the increase in 1998 was a result of the collapse of the Asian markets in 1997. “**The 1998 U.S. Steel Crisis**” that followed the significant increase in steel imports caused domestic turmoil in the U.S., but there is reason to question if there really was a major crisis. Further, the **U.S. steel sector** has been receiving considerable amounts of protection during the last three decades and the difficulties it has been facing may well be due to inefficiency in the U.S. sector rather **unfair trade practices** in foreign markets.

Japanese iron and steel exports have traditionally been a major target of **U.S. antidumping investigations**. Significant amounts of antidumping investigations were initiated in both 1992 and 1999, in an attempt to hinder iron and steel imports from Japan and provide protection to the domestic producers. The success was however recognized as limited, mainly due to the specific nature of the antidumping measure. Trade data shows the **trade effects** of antidumping investigations on targeted trade were far from negligible and there is reason to believe the investigations caused **trade diversion** and **speculation**, which in turn suggest the antidumping measure tends to seal off markets and is likely to increase uncertainty in world trade.

Key words: Dumping, Antidumping, Steel, The 1998 U.S. Steel Crisis, The U.S. Steel Sector, Japanese Iron and Steel Exports, U.S. Antidumping Investigations, Trade Effects, Trade Diversion, Speculation

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Glossary & Abbreviations

AD	Antidumping
AD Agreement	Article VI of the General Agreement on Tariffs and Trade of the World Trade Organization, supplementary provisions to that article and the Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade of the World Trade Organization
AD Order	If an AD investigation determines imports have been dumped an AD order is issued by the DOC, and a final AD duty will be imposed (see p. 13).
Countervailing Duty	Can be imposed if it is determined that goods are subsidized in the country of origin and that the goods in question are causing or threatening to cause material injury to the domestic industry.
CPI	Consumer Price Index
DOC	Department of Commerce
Dumping	A legal term, defined by the AD Agreement (see p. 6). Exports that are sold at prices below “normal value” are dumped according to the AD Agreement.
Final AD Duty	See “AD Order”.
GATT	General Agreement of Tariffs and Trade
HTS	Harmonized Tariff Schedule
ITC	International Trade Commission
JP	Japan
MT	Metric Ton
Normal Value	Price charged in the exporters home market in the ordinary course of trade. Trade is not considered as normal if prices are less than average total costs.
OECD	Organization for Economic Co-operation and Development
Preliminary AD Duty	Once goods have been determined to being dumped by the ITC and the DOC at the preliminary stage in an AD investigation this usually results in a preliminary AD duty (see p. 13)
Unfair Trade	Dumped or subsidized imports are considered as unfair and are addressed through AD and countervailing duty investigations.
US / U.S.	United States
VRA	Voluntary Restraint Agreement
WTO	World Trade Organization

19 CFR §351

Title 19 of the Code of Federal Regulations, Part 351 – Antidumping and Countervailing Duties. Contains procedures and rules applicable to antidumping and countervailing duty proceedings under title VII of the Tariff Act of 1930.

\$

U.S. dollars

¥

Japanese yen

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1 Introduction

1.1 Statement of Purpose and Limitations

“When I [Paul Wilhelm, President of USX’s U.S. Steel Group] complained about dumping, he responded to the effect that it is “good for the consumers”. I told him. “So is smuggling, But whether it’s smuggling or dumping. It’s illegal and it must be stopped!”¹

The view expressed above regarding dumping is not an uncommon one. Dumping is often referred to as an unfair and even illegal practice. Protection against dumped products is available through the Antidumping Agreement of the GATT, which has been adopted in many countries around the world, but it is in fact optional to make use of it. Today, the antidumping (AD) measure is one of the most powerful instruments available to producers when seeking relief from import competition.²

The perception of dumping as an unfair practice and proof of closed home markets, may explain why AD seems to be perceived as a right rather than an option. There is reason for great concern regarding the use of AD because the design of the measure does not allow it to discriminate between low prices due to an efficient use of resources and those that are not. It does not consider whether home markets are closed and the calculations made are rarely based on real costs. It does not consider the economy wide impact of a duty, but then “[t]he focus of the antidumping rules...is not consumer welfare or allocative efficiency.”³ All that matters is if the imported goods are dumped according to the AD Agreement and if the domestic industry is, or may be, injured.

The aim of this paper is to provide information about the AD measure and study the effects it has on trade. To analyze these issues the rationale and design of the AD measure,

¹ DOC, Global Steel Report, p. 108

² Prusa (1999), pp. 3-4

³ View expressed in the U.S. Submission to the WTO Working Group on the Interaction of Trade Competition Policy in 1998, cited in Lindsey (1999), p. 3

will be offered before taking a closer look at the investigations and the price and export effects of AD.

I chose to focus on one sector in one country in this paper because overall trade data includes sectors and trade not targeted by the AD investigations and cannot provide a fair picture of the impact of this measure. Information regarding the chosen sector, namely the steel sector, will also be offered to be able to analyze the issues set forward in this paper. An inclusion of more sectors and countries would allow an interesting comparison between various sectors and countries but due to time and space limitations this would be beyond the purpose of this paper.

1.2 Case Selection

To be able to study trade effects of AD it is necessary to select a country and sector targeted by a fair amount of AD cases because without any cases there would not be much to study. Further, the years following 1994 are of interest when studying the current use and effects of AD since the AD Agreement underwent changes as a result of the Uruguay Round in 1994.⁴

Japanese iron and steel exports to the U.S. were selected due to the amount U.S. AD cases against this particular country and sector. The U.S. is the largest user of AD in the world and Japan was the main target of U.S. AD investigations between 1995 and 1999 as can be seen in table 1.1.⁵ A majority of the 19 cases against Japan were concerned with its steel exports to the U.S. as can be seen in appendix 1.4.

Table 1.1 Main Targets of U.S. AD Petitions, by Countries 1995 ~ 1999

Countries	1995	1996	1997	1998	1999	Total
Japan	3	3	2	3	8	19
China	2	7		1	6	16
Korea	1	1	2	4	6	14
Taiwan	1	2	2	4	2	11
Indonesia		1		2	4	7
Sum	7	14	6	14	26	67
Total Number of AD Petitions	12	21	16	36	46	131

Based on appendix 1.3.

⁴ Runnbeck (1996), p. 18

⁵ U.S. AD petitions, by countries, between 1990 and 1999 are listed in appendix 1.3.

2 The Steel Industry

This chapter contains some general information about the steel industry and trade, as well as more specific information pertaining to the Japanese and U.S. steel industry.

2.1 Market Structure and Characteristics

The steel industry is characterized by high fixed costs, and a relatively inelastic demand, at least in the short run. A large portion of the steel mill costs are fixed, and this creates an incentive to maintain or increase capacity utilization even when the market may be signaling a need to cut back on production since each reduction will raise the cost of production. Further, restarting a mill once idle is very costly and mills are therefore inclined to continue production even when prices fall below total costs and in the short run perhaps even below marginal costs.⁶

High fixed costs and less than perfect competition in the world steel market, due to protection and subsidies, are believed to facilitate overcapacity and high capacity utilization in the industry. Over a long period of time there has been a sizable and consistent gap between capacity and production in the steel industry and most industry experts agree there is an overcapacity in global steel production. According to an OECD report in 1999, world steel-making capacity increased by almost 150 million metric tons between 1985 and 1999 and by 2001 it would increase by an additional 45 million.⁷

In the short run, demand elasticity is limited by factors such as automotive model-year plans and material processing constraints of end user equipment. In the short run, due to price volatility, end users are likely to be reluctant to invest in special equipment and training needed to make a switch to steel inputs.⁸ Due to these market conditions and characteristics of the steel industry, sudden sharp declines in demand put severe downward pressure on steel

⁶ Global Steel Report, p. 14, first paragraph

⁷ Global Steel Report, p. 3

⁸ Global Steel Report, p. 14, third paragraph

prices. The globalization of the steel industry in turn means firms are also subject to changes in international demand conditions.⁹ This was demonstrated in the 1998 U.S. steel crisis when U.S. demand was strong but due to the collapse of the Asian markets steel prices fell significantly and the situation was further exacerbated when the Asian financial crisis went global in mid-1998.¹⁰

Global steel trade is dominated by a relatively small number of large multinational trading companies and most of these are able to change their suppliers with relative ease and speed, as well as reorient their sales. Japanese trading companies, however, often purchase a majority of their steel from Japanese steel mills making them less flexible although this has been changing and also Japanese traders are showing more flexibility in their steel purchasing. Due to long-term relationships between Japanese steel mills and Japanese trading companies, the latter are essentially the sole exporters of Japanese steel.

Trading in steel is a competitive, low cost, low-margin business and the trading companies provide a service that can be duplicated by basically anyone with a phone and a fax machine. Trading companies themselves are generally not responsible for subsidies, anticompetitive practices, or other market-distorting practices; and cannot individually cause market prices to increase or decrease. Further, due to the low profit margins individual traders are reluctant to offer large price cuts to their customers. It is therefore believed that large price cuts for the most part originate with steel producers rather than steel traders.¹¹

2.2 U.S. Steel Protection and the 1998 Steel Crisis

During the last three decades the U.S. steel sector has enjoyed considerable protection. In 1969 quotas were imposed and were later followed by the Carter administration's "trigger price" mechanism that imposed a price floor for steel imports in the late 1970's. Steel imports have traditionally been the largest target in U.S. AD investigations and constituted close to half of the total amount of investigations conducted between 1980 and 1989.¹² Almost 40 percent of all the unfair trade cases investigated in the U.S. since 1980 have been related to steel products.¹³

⁹ Global Steel Report, p. 14, fourths paragraph

¹⁰ Global Steel Report, p. 13

¹¹ Global Steel report, pp. 31-32

¹² Krishna (1997), p.3

¹³ Global Steel Report, p. 2

In 1984 the Reagan administration negotiated voluntary restraint agreements (VRA) with virtually all exporters of steel after the U.S. steel industry filed a series of AD and countervailing duty petitions. The VRAs lapsed in March 1992 and the steel industry responded by filing another wave of AD and countervailing duty cases against steel imports.¹⁴ But, from the U.S. steel sector's point of view the investigations proved largely ineffective due to the shift of demand to other products and third-country suppliers that rushed in to fill the vacuum.¹⁵

Six years later the U.S. was hit by the “1998 U.S. Steel Crisis”, characterized by a surge in imports and falling steel prices, which resulted in yet another wave of AD cases. The crisis, which was described as perhaps “...one of the worst crises to hit the industry in recent years”,¹⁶ resulted in a range of actions designed to assist the troubled sector. The AD measure was used to a large extent to protect the steel industry and many of the actions were designed to make it easier to bring AD cases and to expedite the investigations. See appendix 2.1 and 2.2 for more information regarding the “1998 U.S. Steel Crisis” and the actions taken by the U.S. to assist the steel sector.

2.3 Japanese Steel and Market Distorting Practices

In the case of Japanese steel the U.S. claims the existence of trade distorting practices are facilitated by the lax enforcement of antitrust laws in Japan.¹⁷ It is suspected that a “cooperative system” exists due to the virtually constant production shares during the last 25 years among the major Japanese crude steel producers, Kobe, Sumitomo, NKK, Kawasaki, and Nippon Steel.¹⁸ For a “cooperative system” to be possible the home market must be controlled, i.e. trade barriers of some sort has to be present to limit access to the market in order to minimize imports. Possible features identified as restricting steel trade in Japan are distribution barriers, product-certification requirements, and alleged international market-sharing arrangements.¹⁹

¹⁴ Lindsey, Griswold and Lukas (1999), p. 6

¹⁵ Lindsey (2001)

¹⁶ Global Steel Report, p.11

¹⁷ Global Steel Report, p. 5

¹⁸ Global Steel Report, pp. 62-68

¹⁹ Global Steel Report, p. 75

The cooperative system is believed to be an important feature facilitating a higher domestic price in the Japanese market. The resulting “excess” revenue is believed to benefit the Japanese producers since it can be used to increase the industry’s competitiveness through higher levels of research and development and also facilitate cross-subsidization.

The Global Steel Report describes various features of the Japanese market structure, which in theory facilitate high domestic prices, in great length but fails to analyze the effects of the market structure on prices. The noncompetitive features of main concern, which are inherent in Japanese steel industry policy, believed to result in high domestic prices are coordination of firms and administrative guidance, “a common regulatory technique that, although generally non-binding seeks to conform the behavior of regulated parties to broad administrative goals.”²⁰ It is, however, noted in the Global Steel Report that the Japanese steel producers are generally recognized as efficient in terms of both labor and total factor productivity. For more information about Japanese steel and noncompetitive practices see appendix 2.3 and 2.4.

2.4 U.S. AD and the Steel Trade

Repeatedly the U.S. has argued there is a need for certain agreed upon “rules of the game”, where trade barriers, subsidies, and government policies, which are sources of artificial competitive advantage are condemned as unfair.²¹ AD supposedly targets unfair trade, by doing this it seems to be believed to be able to create what is generally referred to as the ‘level playfield’. But what exactly is ‘level’ and how is it actually measured?

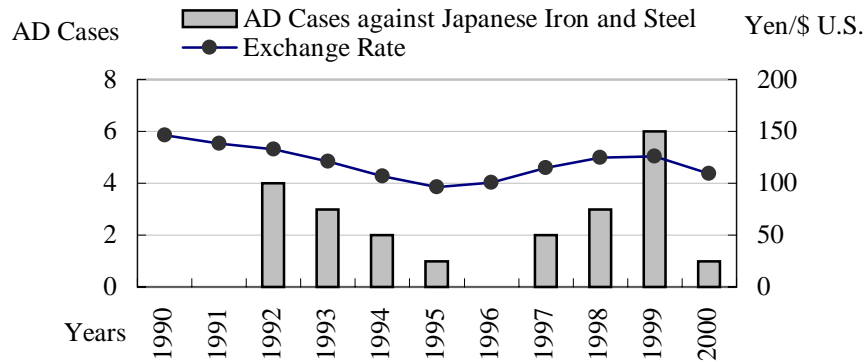
Historically an increase in the U.S. trade deficit has been correlated with rising demands for protection. The rationale seems to be, if trade was fair one should be selling as much as one is buying.²² Japan and China with which the U.S. runs the largest trade deficits are also the major targets of U.S. unfair trade cases. One can clearly see in figure 2.1 that when the yen has fallen against the U.S. dollar the amount of AD petitions has increased. An explanation for the increased demand for protection is that when the yen falls against the dollar, Japanese steel exports become cheaper and more attractive to the U.S. market, resulting in U.S. producers experiencing increased import competition.

²⁰ Young (1984) reprinted in Milhaupt et al. (2001), p.536

²¹ Lindsey (1999), pp. 3-4

²² Griswold (1998)

Figure 2.1 U.S. AD Cases against Japanese Iron & Steel and the Exchange Rate 1990~2000



Based on appendix 1.4 and 1.8

Is then the trade deficit proof of a closed market? It may seem like a logical conclusion, but it misses the point of trading. We trade because we want something that someone else has or can produce and we use money to exchange these goods. Are we worse off if the counterpart does not buy something from us for the equal amount of money? The simple answer is no. We choose to buy because we either do not have what is sold, cannot produce it, or simply because the goods preferred are better in quality and/or price.

It is impossible to have everything and be better at producing everything, expecting all countries to be equal is just as unrealistic. Some countries have cheap labor, large amounts of capital, and others are technologically advanced. Trade enables us to enjoy a greater variety of goods, may it be consumer goods or industrial inputs, which in turn allow us to consume and produce goods we otherwise could not. In the end, we choose to buy because it makes us better off, if not we would not be buying.

As time passes by and the world changes, so will the comparative advantage. Labor may become more expensive, capital scarce, or technological innovations may change the picture altogether and countries will have to adapt. It takes time for resources to be reallocated, but with no sales there will be no profit and no salary to be paid. Is then a country better off protecting troubled sectors/producers? Protection is paid by consumers through higher prices in the country offering protection, so it would perhaps be the fairest to ask the opinion of those who ultimately have to bear the cost. But in reality this is seldom the case. AD investigations are only required to consider the situation of the industries seeking protection, as will be shown in the following chapter.

3 Antidumping in Theory and Practice

This chapter contains information about dumping, price discrimination and AD in practice. In the first two sections the terms dumping and price discrimination will be explained and the AD agreement will be briefly presented. The final section will discuss the problems associated with AD in practice.

3.1 Dumping

Dumping is a strictly legal term, addressed only within the context of international trade. There exists no legislation offering protection against dumping when it occurs within the borders of a country. According to the AD Agreement a good is considered as dumped if the export price, the price of the product in the country of import, is less than the normal value, the price charged in the exporters home-market in the ordinary course of trade. Trade is not considered normal if a price is less than average total costs. Average total cost is the sum of fixed and variable costs of production plus selling, general and administrative costs. If there are no comparable sales in the domestic market, the highest comparable price charged in third markets or the exporting firm's estimated costs of production plus a reasonable amount of profits, administrative, selling and other expenses are used to determine normal value.²³ Further, for actions to be taken the dumping margins, the difference between the 'normal value' and the actual price, are *de minimis* required to be 2 percent or that the volume of imports/injury that are/is not negligible.²⁴

Dumping margins may only be applied if dumped products have caused or threaten to cause material injury to domestic producers of like goods and this must be proved with positive evidence²⁵ It is optional to enforce the AD legislation and impose AD duties even when all conditions for imposition are met.²⁶ Countries are i.e. free to take into consideration

²³ Article 2 of the AD Agreement

²⁴ Article 5.8 of the AD Agreement

²⁵ Article 1 of the AD Agreement

²⁶ Article 9 of the AD Agreement

the effects of dumped imports on other segments in the economy (consumers and secondary-line producers for example) before deciding on remedies. It is also stated in the AD Agreement that it is desirable that the imposition of a duty is permissive.²⁷ Meaning that it is preferred that a lesser duty is used when a lesser duty would be adequate to remove the injury / threat of injury to the domestic industry.

3.2 Price Discrimination

Dumping is sometimes referred to as price discrimination, but dumping actually encompasses a wider definition than price discrimination. Price discrimination means selling identical products at different prices in different markets. In the short run companies will normally try to at least cover their marginal cost, the cost of producing one more unit. Since the fixed costs will be incurred whether or not a company produces any goods, this is a normal and rational decision. On the other hand, if the marginal cost is not covered the company might as well stop the production since every additional output will cost them money. In the long run, however, companies will have to cover all their costs, both fixed and variable. This means that the total cost per unit, i.e. average cost, must be covered.

In order to price discriminate, the following two conditions must be satisfied:

- Different demand elasticity in the markets to allow different prices to be charged, and
- Market segmentation to avoid parallel imports

In reality markets are often characterized by imperfect competition rather than perfect competition. This means companies will choose a price depending on how much they wish to sell (the higher the price the less will be sold) rather than treating prices as given when making their profit-maximizing decisions. Further, different markets usually have different demand elasticity, i.e. the prices will differ in these markets. The more elastic a demand is the more price-sensitive it is. A lower price will be charged in the price-sensitive market and a higher price in the less price sensitive market in order to maximize profits.

Segmentation of markets is crucial if price discrimination is to be possible. If a market is not sealed off from secondary import, i.e. re-importation of the cheaper identical product sold

²⁷ Article 9 of the AD Agreement

in other markets, price discrimination will be impossible.²⁸ This implies some sort of barrier needs to be present.

If a lower price is a result of a more efficient use of resources, resources will be reallocated to where they more efficiently used in an economy and thus it will be welfare enhancing. The more productive companies will push out the less productive companies and thereby free resources, which then can be utilized by more productive companies. In the long run this will be to the advantage of the economy.

Given normal circumstances a company will try to maximize profit. In the short run a company may however behave differently. It may forgo profit in order to gain market power or a depressed market may force the company to lower its prices due to low demand, and a small income will be preferred to no income at all. A lower price could allow a company to survive in a temporarily depressed market and hopefully avoid laying off personnel, or even worse, being forced to lay down the production altogether. Due to differences across countries' employment practices and labor markets it can be very costly for a company to lay off workers. Companies in a well-regulated labor market will therefore be more prone to cyclical dumping than others.²⁹

Sporadic dumping may arise without deliberation and can be due to lack of experience in pricing a new product, or demand conditions and exchange rates may not have been known when production decisions were made. Other reasons for variations in price may be due to market penetration strategies, increasing returns to scale, defense of an existing market, predatory dumping, or differing demand elasticity.³⁰

All the strategies described above, except sporadic dumping, are deliberate strategies but only one is potentially detrimental to an importing country and that is predatory dumping. Predatory dumping was the original rationale for today's AD legislation. The strategy of predation is to drive out all existing competition in a market in order to establish a monopoly. Once this is accomplished prices can be raised and losses be recouped. For this to be possible the company must, however, have a global monopoly or convince the host government to impose or tolerate entry restrictions to avoid future competition. Understandably this is a difficult strategy to pursue and in practice successful post-Second World War cases remain undocumented.³¹

²⁸ Markusen et al (1995), p. 356

²⁹ Hoekman and Kostecki (1995)

³⁰ Kostecki (1991)

³¹ Hoekman and Kostecki (1995)

3.3 AD in Practice

Today the unfairness of dumped products is the main argument for the use of AD rather than predation. It is claimed that dumped prices signal the existence of closed home markets and that this is to the disadvantage of the import competing producers. A closed home market enables producers to charge higher prices in this sanctuary market and cross-subsidize exports, and/or use the excess revenue to increase competitiveness through higher levels of research and development. Although dumping is generally referred to as unfair, neither price discrimination nor pricing below average cost is illegal or detrimental to an economy. The legislation under which producers can seek protection against dumped goods is in fact optional and is only applicable within the context of international trade.

A product will be considered as dumped not only if the export price differs from the home-market price (price discrimination), but also if it is sold below average total cost, i.e. ‘normal value’, according to the AD Agreement. The use of ‘normal value’, in the AD investigations is difficult to economically justify. The time period used in investigations are usually no longer than one year and can hardly be termed a long time period justifying the use of average total cost rather than marginal cost. Further, production is rational and understandable as long as prices are equal to or above marginal cost because the fixed costs will be incurred whether or not there is any production. While prices below marginal cost are clearly questionable and predatory the same cannot be said about prices below average cost.

The methodologies used in the majority of the AD investigations gives reason to question if the investigation is capable of proving price discrimination, let alone any unfair trade practices. Due to the difficulty of obtaining the actual average cost in most cases, it is common practice to estimate it.³² An estimation uses the exporting firm’s estimated costs of production plus a reasonable amount of profits, administrative, selling and other expenses; or a third market. However, an estimation of an exporting firm’s costs excludes all home market sales and can therefore not prove price discrimination, and a high third market price does not prove a protected home market. Further, the inclusion of profit in the estimation means it can only show sales are estimated to be below some baseline level of profitability. Average cost is also estimated when comparable sales in the exporter’s home market is missing altogether, i.e.

³² Lindsey (1999), pp. 8-9

when there exists no sanctuary market.³³ Considering the definition of ‘normal value’ and the methodologies used it is, perhaps, not surprising that less than 5 percent of the AD cases were rejected because the U.S. industry could not show unfair pricing, between 1980 and 1994.³⁴

³³ Lindsey (1999), p. 6

³⁴ Prusa (1999), pp. 9-10

4 U.S. Antidumping

This chapter includes two sections. The first offers an overview of U.S. AD and it is hoped to provide general information about U.S. AD investigations and procedures. The second section offers an overview of U.S. AD cases against Japan.

4.1 An Overview of U.S. AD

4.1.1 Procedures and Offices Involved in U.S. AD Investigations

In this section a brief overview of U.S. AD is offered. It is hoped to provide general information about procedures and offices involved in U.S. AD investigations. The U.S. AD investigations are handled by the Department of Commerce (DOC)³⁵ and the International Trade Commission (ITC). The DOC determines whether goods are being dumped while the International Trade Commission determines whether the goods in question are causing or threatening to cause material injury to domestic producers of like products.³⁶

Figure 4.1 illustrates the AD investigation in the United States, beginning with a petition. The days offered in the figure are the deadlines for the specific stages. Normally, a request for an investigation is filed with the ITC and the DOC simultaneously, the DOC will then decide whether or not to accept and initiate an AD investigation. The Secretary of Commerce can also choose to self-initiate an investigation when appropriate.³⁷

Once the petition has been accepted, both the ITC and the DOC will carry out an investigation and both will issue a preliminary and a final determination, which will be published in the Federal Register. If the DOC's preliminary determination is negative the investigation will still continue,³⁸ but should the DOC's final determination or the ITC's

³⁵ The laws and agreements protecting the U.S. businesses from unfair competition are enforced by the Import Administration, within the International Trade Administration of the Department of Commerce.

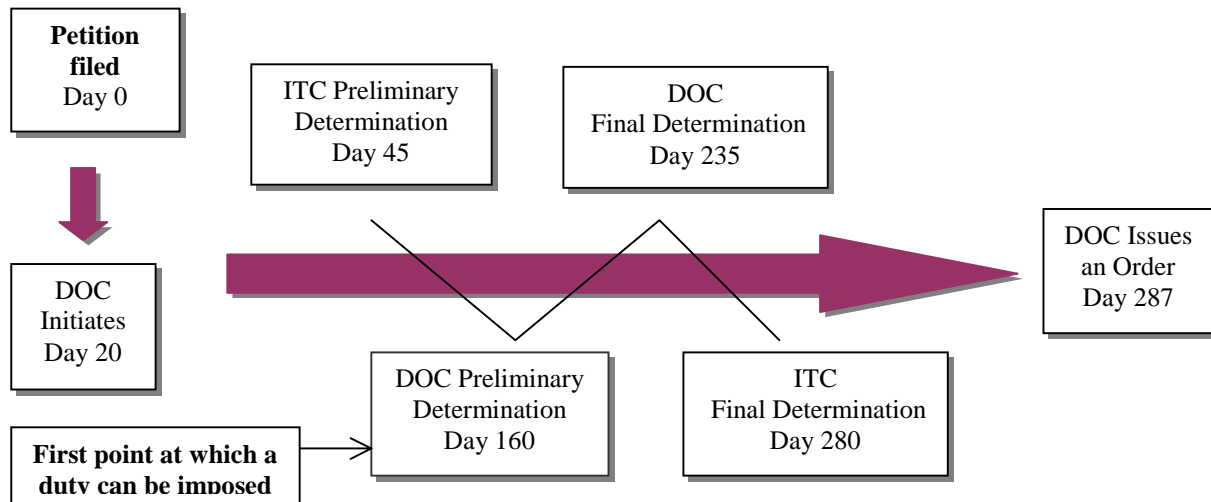
³⁶ Lindsey (1999), p. 2

³⁷ 19 CFR §351.201, and section 732(a) of the Tariff Act of 1930.

³⁸ 19 CFR §351.205 (a)

preliminary or final determination be negative the case in question will be terminated upon publication in the Federal Register.³⁹

Figure 4.1 U.S. AD Investigations



Based on information presented in 19 CFR Part 351, Annex VII, p. 148

AD duties are most often imposed on goods on the date on which notice of an affirmative DOC preliminary determination is published in the Federal Register.⁴⁰ At this stage the remedy usually takes the form of a bonding requirement to ensure payment if a duty is ultimately imposed.⁴¹ Importers are required to post a bond or cash to cover an estimated amount for the duties, which would be collected in the event that an AD order is issued upon the completion of an investigation.⁴² If the DOC’s final determination is affirmative the ITC will in most instances issue (except in certain countervailing duty investigations) a final injury determination and once both the DOC and the ITC have made final affirmative determinations the DOC issues the AD order.⁴³

³⁹ 19 CFR §351.201

⁴⁰ 19 CFR §351.206 (a)

⁴¹ 19 CFR §351.205 (a)

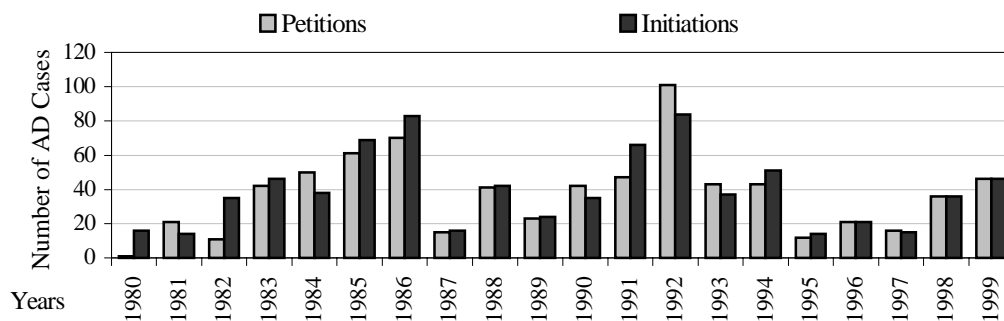
⁴² DOC, “An Introduction to U.S. Trade Remedies”

⁴³ 19 CFR §351.210 (a)

4.1.2 U.S. AD Investigations 1980 ~ 1999

Figure 4.2 illustrates the distribution of the 742 AD petitions and the 788 initiations of AD investigations, between 1980 and 1999. The petitions can be used to measure the level of demand for protection while the initiations of AD investigations can be used to measure the willingness to provide the demanded protection. The figure shows demand for protection has fluctuated significantly between 1980 and 1999, peaking in 1986, 1992 and 1999. Generally, larger amounts of petitions have lead to larger amount of investigations. This last observation may seem quite natural, but because it is questionable whether the AD investigation is capable of targeting unfair trade there is reason for concern. What the figure shows is that when demand for protection has increased so has the willingness to provide it.

Figure 4.2 U.S. AD Petitions and Initiations of Investigations 1980 ~1999



Based on appendix 1.1

Table 4.1 shows that although there was a larger amount of petitions filed during the 5-year period 1980-1984 than 1995-1999, the latter had the fewest amount of initiations of AD investigations compared to any other 5-year period between 1980 and 1999. The lower willingness in providing protection could indicate the changes made in the AD Agreement in 1994 had a restraining effect. Further there was a significant increase in the amount of revocations during the period 1995-1999. The relatively low amount of initiations and the larger amount of revocations could indicate the changes in the AD Agreement did restrict the use of this measure.

However, as can be seen in figure 4.2, in 1998 and 1999 both the number of petitions and initiations of AD investigations once again showed a large increase compared to the

previous three years. The 1995-1999 period also shows a greater correlation between the number of petitions and initiations compared to the previous periods. Table 4.1 shows that during the 1980's the amount of initiations exceeds the amount of petitions, i.e. the willingness to provide protection seems to have been greater than the actual demand for protection, while the following years show a more even picture.

Table 4.1 U.S. Determinations in AD Investigations 1980 ~1999

Period	Petitions	Initiations	Determinations		Duty Orders	Revocations
			Preliminary	Final		
1980-1984	125	149	102	77	47	21
1985-1989	210	234	209	188	127	38
1990-1994	276	273	235	185	107	49
1995-1999	131	132	117	119	68	95
Total	742	788	663	569	349	203

Based on appendix 1.1

Prusa (1999) and Lindsey (1999) both studied U.S. AD and their findings will be briefly presented to provide some general information about the AD cases and the duties levied. Prusa found that of the over 700 AD cases petitioned in the U.S. between 1980 and 1994 about 25 percent were settled and of the remaining 75 percent, half were rejected while the other half resulted in duties.⁴⁴ According to Prusa's study, the average final AD duty was 45 percent and the median final duty levied was 26 percent.⁴⁵

Lindsey's (1999) study of all U.S. AD investigations between 1995 and 1998, involving a total of 141 company specific findings in 49 different cases, showed the average final dumping duty was 59 percent, and ranged from 0 to 454 percent. The average dumping duty including all zero and *de minimis* dumping findings was 45 percent. Of the 141 investigated companies 107 (76%) were determined to be dumping and were charged with an antidumping duty.⁴⁶

Considering zero tariffs apply to nearly one third of the national tariff lines and the applied simple average Most-Favored-Nation (MFN) rate declined from 6.4 percent in 1996

⁴⁴ Prusa (1999), pp. 8-10

⁴⁵ Prusa (1999), p. 16; It is unclear whether or not the zero and *de minimis* dumping findings were included in Prusa's calculations.

⁴⁶ Lindsey (1999), pp. 7-8

to 5.7 percent 1999,⁴⁷ both Prusa and Lindsey's findings show antidumping duties were relatively high.

4.1.3 U.S. AD Orders in Effect by Dec. 31, 2000

By December 31, 2000, a total of 228 AD orders were in effect and the orders were distributed among 39 countries according to DOC statistics. The six most targeted countries are presented in table 4.2, a complete list can be found in appendix 1.2.

Table 4.2 U.S. AD Orders in Effect by Dec. 31, 2000, across Countries

Country	China	Japan	Taiwan	Korea	Brazil	Italy	Others
Number of AD Orders	39	34	19	15	12	12	97

Based on appendix 1.2

AD orders are country specific and this means duties are levied only on imports from the countries named in the petition.⁴⁸ Among the 39 countries involved in the U.S. AD investigations China and Japan were by far the most targeted countries, with 39 and 34 effective orders against them respectively. Since the Uruguay Round in 1994, Japan has been the major U.S. target of AD duties. During the period 1995 to 1999, 10 new orders were issued against China while 15 were issued against Japan, see appendix 1.2.

4.2 U.S. AD against Japan

4.2.1 An Overview

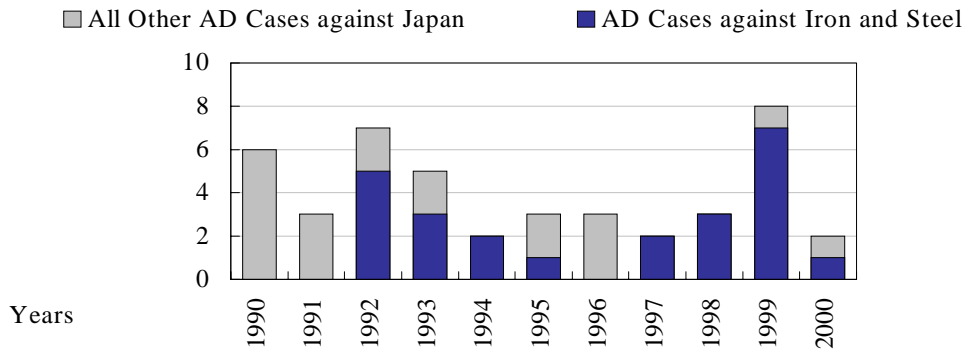
Japan was the major target of U.S. AD investigations and duties between 1995 and 2000. The U.S. AD petitions against Japan between 1990 and 2000 are presented in figure 4.3 and it illustrates the 44 AD petitions against Japan and the 23 steel cases' share of the total amount of petitions. See appendix 1.4 for a complete list of U.S. AD cases against Japan by products.

⁴⁷ WTO Trade Policy Review of the U.S. 1999, p. 2

⁴⁸ Prusa (1999), p. 10

The figure shows the steel cases were responsible for the large increase in AD cases in both 1992 and 1999.

Figure 4.3 U.S. AD Petitions against Japan 1990 ~ 2000



Based on figures in appendix 1.4

Most of the U.S. AD cases against Japanese steel apply to goods classified under the Harmonized Tariff Schedule (HTS) code 72: Iron and Steel, see appendix 1.6, therefore these cases will be referred to as the iron and steel case from now on.

4.2.2 U.S. AD Cases against Japanese Iron & Steel 1990~1999

Between 1990 and 1999 a total of 23 petitions were filed against Japanese iron and steel exports to the U.S. and all resulted in the initiation of AD investigations. Table 4.3 presents the AD cases initiated, and ITC and DOC determinations in the cases, during the period 1990-1999. The ten-year period has also been divided into two five year periods, 1990-1994 and 1995-1999. This allows a comparison of the two periods, and makes it possible to see the effect of the changes made in the Antidumping Agreement in the case of the steel trade between Japan and the U.S. More detailed data regarding the cases is offered in appendix 1.5.

The table shows 30 percent the ITC final determinations were negative, while the overall figure for U.S. trade was roughly 50 percent.⁴⁹ Further, table 4.3 suggests that the changes made in the Antidumping Agreement did not restrict the use of this measure in the case of steel trade. Not only did the total amount of investigations increase after 1994 but also a larger amount of the cases resulted in duties, both preliminary and final.

⁴⁹ Prusa (1999), p. 10

Table 4.3 U.S. Determinations in AD Investigations against Japanese Iron & Steel 1990 ~ 1999

	Total Amount of Initiations	ITC Preliminary Neg. Findings	DOC Preliminary Neg. Findings	ITC Final Neg. Findings	DOC Final Neg. Findings	DOC AD Order
1990-1999	23	3	-	7	-	13
as % of Total		13	-	30	-	57
1990-1994	10	2	-	4	-	4
as % of Total		20	-	40	-	40
1995-1999	13	1	-	3	-	9
as % of Total		8	-	23	-	69

Initiations: Initiations of AD investigations

Based on appendix 1.5

Neg. Findings: Negative findings i.e. cases were rejected.

AD Order: Results in AD duties.

4.2.3 U.S. AD Duties against Japanese Iron & Steel 1995~2000

Between 1995 and 1999, 13 petitions for AD investigations were filed in the U.S. against Japanese iron and steel and all were accepted. Of the 13 investigations only 1 was terminated during the preliminary stage by the ITC, and the remaining were found to be dumping in the preliminary proceeding.⁵⁰ All the remaining 12 were imposed with a preliminary AD duty, ranging from 12 to 157 percent against 43 named companies. The median preliminary company specific and none-specific duty was 59 and 35 percent respectively.

In the final ITC proceeding 3 of 12 investigations were terminated by the ITC and the remaining 9 were imposed with a final AD duty. The final duties ranged from 11 to 119 percent, against 34 named companies. The median final company specific and none-specific duty was 65 and 33 percent respectively and none of the investigations were settled.

Table 4.4 shows the number of preliminary and final AD duties levied against Japanese iron and steel between 1995 and 1999. The material is further divided to allow a comparison of the company specific and non-specific duties. A company specific duty is as the name suggests specific for the companies named in an AD investigation while a non-specific duty is applicable to all Japanese exporters not specifically named.

⁵⁰ See appendix 1.5

Table 4.4 AD Duties against Japanese Iron and Steel 1995 ~ 1999

	Number of Duties	Average Duty in %	Median Duty in %
<i>All</i>			
Preliminary Duties	55	62	59
Final Duties	43	63	59
<i>Company specific</i>			
Preliminary Duties	43	67	59
Final Duties	34	67	65
<i>Non-specific</i>			
Preliminary Duties	12	46	35
Final Duties	9	48	33

Company specific duties apply to companies specifically named in an AD investigation.

Non-specific duties apply to all exports from a certain country, in this case Japan, not specifically named in an investigation.

Based on appendix 1.6 B

The table shows both the specific and non-specific AD duties were high and restrictive compared to other tariffs,⁵¹ and that the final company specific AD duties were almost twice as high as the non-specific duties. Further, the final company specific duties tended to be higher than the preliminary duties, while the non-specific preliminary and final duties did not show much change.

Compared to both Lindsey’s and Prusa’s study the duties levied on Japanese iron and steel exports to the U.S. seem relatively high. The average and median final duty imposed on Japanese iron and steel exports, between 1995 and 1999, was found to be 63 and 59 percent respectively. Lindsey and Prusa found the average final duty to be 59 and 45 percent, respectively. When the zero and *de minimis* dumping duties were included, Lindsey’s average dropped to 45 percent. Further, Prusa’s study found the median final duty to be 26 percent.⁵² The zero (1 case) and *de minimis* (0 cases) dumping duties were not included in the calculations made in this paper.

The higher average and median value found in this paper shows the duties levied against Japanese iron and steel tended to be higher than the “average” U.S. AD duty. Although steel imports have traditionally been the largest target in U.S. AD investigations, not much else can be said from a comparison of the findings made in this paper with those

⁵¹ See p. 16-17

⁵² See p. 16

made by Lindsey and Prusa because their data included various sectors, countries, developed and developing; and different types of economies.

Since the calculations made in this paper for the period 1995-1999 show higher average and median duties than in both Lindsey's and Prusa's studies, it is likely that their results would have been lower if there had been no overlapping. The greater difference between Prusa's results and those found here could be attributable to the possible inclusion of the zero and *de minimis* dumping duties in his study. The ten U.S. AD investigations against Japanese iron and steel, initiated between 1990 and 1994, are included in both Lindsey's and Prusa's study. This is less of a problem in Prusa's study due to the fact that these cases' share of the total amount of cases is relatively small. In Lindsey's study, on the other hand, the Japanese steel cases constitute a significant share of the studied material.

5 Trade Effects

This chapter includes two sections. The first offers an overview of U.S. AD and it is hoped to provide general information about U.S. AD investigations and procedures. The second section offers an overview of U.S. AD cases against Japan.

5.1 Introduction

An AD duty is country specific and often relatively high. Once an AD duty is levied it will result in a higher price on targeted imports in the country levying it, and is therefore expected to negatively affect import quantities. Non-targeted exporters, on the other hand, are likely to benefit from an AD duty. This is because an AD duty will cause targeted trade to become more expensive, and non-targeted countries' exports will by comparison become more attractive. Further, the higher the duty, the more trade diversion is expected.⁵³

A price increase on the targeted producers' behalf to avoid a duty would be associated with the same effects as an AD duty, i.e. higher prices on targeted goods and falling export quantities. A price increase would however be collected by the producers and is likely to be perceived as a more attractive option than an AD duty. A price increase on the producers' behalf will be visible in the trade statistics, but price increases due to AD duties will not.

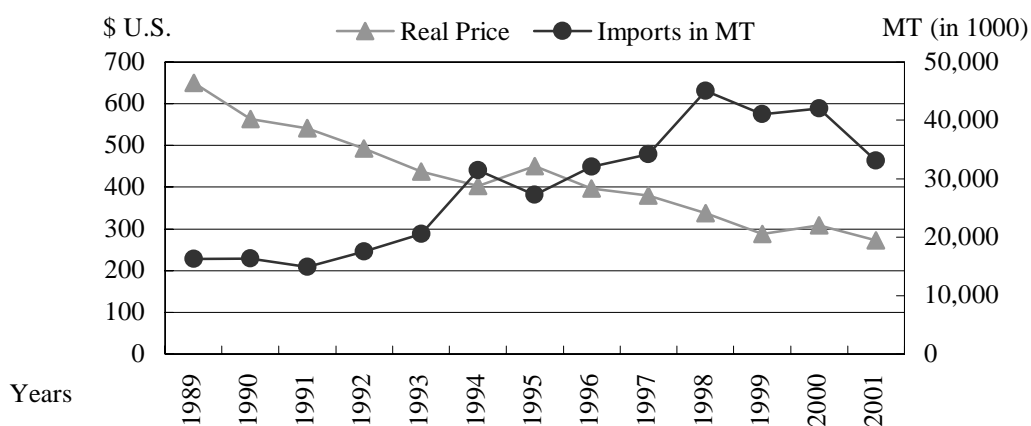
Total import of steel is less likely to be affected due to three factors: the specific nature of the AD measure, the flexibility of the steel trading companies, and the stiff competition in steel trade. An AD duty would ensure a higher price on steel from the targeted country but not on all steel imports. If the world price on steel is not above the prices of the targeted country the flexibility of the steel trading companies and the high level of competition in the steel trade limits the scope for a price increase because trading companies are likely to shift to cheaper sources. If overall prices do not rise, total import levels are less likely to fall. The AD measure is therefore, from the protection seeking producers' point of view, quite likely to be perceived as rather inefficient.

The AD Agreement does however allow a cumulative assessment of the effects of imports from more than one country, and AD investigations often target specific goods from many countries in a single investigation.⁵⁴ Although the AD is a specific measure, through the cumulative assessment it becomes more comprehensive, and domestic producers are more likely to be successful in achieving the protection if a larger share of total trade is targeted.⁵⁵ First of all, total import quantity is more likely to fall if the most price competitive producers can be targeted since there is a greater likelihood overall imports will become more expensive, at least in the short run. In the long run, as long as trade is open, new producers are likely to enter the market because of the perceived profitability. Secondly, it should be easier to show injury or threat of injury with larger amounts of imports and the main goal of the cumulative assessment was in fact “to reduce the rejection rate at the ITC.”⁵⁶

5.2 An Overview of U.S. Steel Import Quantities and Prices 1989 ~ 2001

Figure 5.1 illustrates the relationship between U.S. iron and steel import prices, in 1995 dollars, and import quantities, in metric tons (MT), according to U.S. HTS import statistics (HTSUS).⁵⁷

Figure 5.1 U.S. Iron & Steel Imports 1989-2001



Based on appendix 1.7

⁵³ Prusa (1996), p. 2

⁵⁴ Article 3.3 of the AD Agreement

⁵⁵ Prusa (1996), pp. 4-5

⁵⁶ Prusa (1996), p. 5

⁵⁷ See appendix 1.7 for more detailed data

The Customs value of the imports was used to calculate the prices. The Customs value is the value of imports as appraised by the U.S. Customs Service. This value is defined as the price actually paid or payable for merchandise, excluding U.S. import duties, freight, insurance, and other charges.⁵⁸

The figure shows import prices has been falling throughout the 90's despite the protection offered to this sector. Import quantities were relatively stable up until 1992, when the VRAs lapsed. After the laps import quantities started to increase significantly. Falling prices has been correlated with increasing amounts of imports but after the peak in 1998, import quantities fell despite a continued price fall.

5.3 Price and Quantity Effects

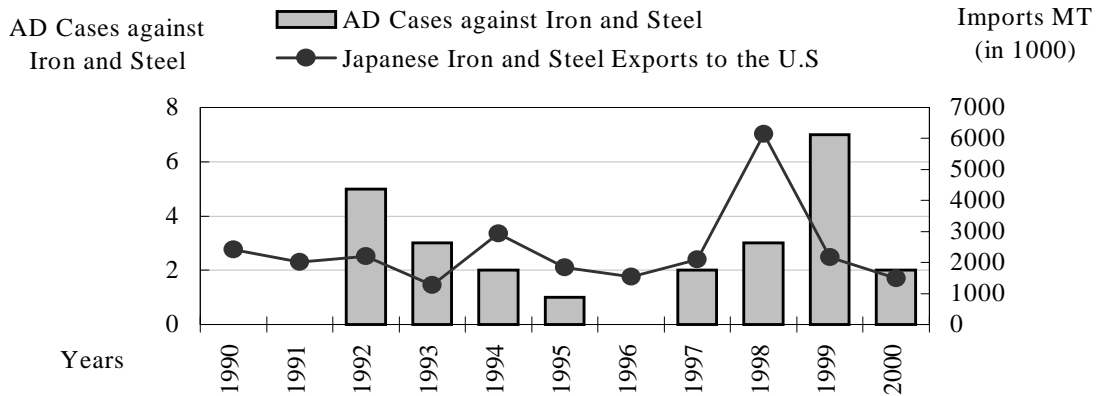
Figure 5.2 and 5.3 illustrate the amount of U.S. AD petitions compared to Japanese iron and steel export quantities and prices, respectively, between 1990 and 2000. The JPHTS export statistics, at a 2-digit level (72: Iron and Steel), was used in both figures and they illustrate how much iron and steel left Japan for export to the U.S., and the prices of the exports in the U.S. The JPHTS export statistics was used to study the trade effects of the AD investigations rather than the HTSUS import statistics since the latter, in the case of iron and steel trade, is exposed to time lags caused by shipment, typically 3 months in length.⁵⁹

The figures show demand for protection peaked in 1992 and 1999, with five and seven AD petitions being filed against Japanese iron and steel. There was a sudden increase in demand for protection in 1992 when the VRAs lapsed. The correlation with the laps suggests the increase in AD petitions was an attempt to rebuild the protectionist wall, which lapsed with the VRAs. The changes in prices and export quantity were relatively moderate at the time, as shown in the figures, and do not explain the increased demand very well.

⁵⁸ USITC

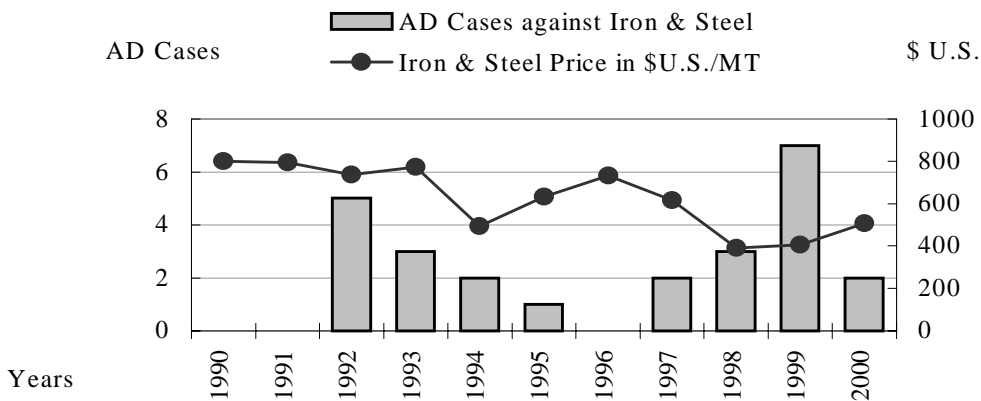
⁵⁹ Muto, Free Trade Center, Jan. 25, 2001.

Figure 5.2 U.S. AD Petitions and Japanese Iron & Steel Export Quantities 1990~2000



Based on appendix A 1.4 and A 1.8

Figure 5.3 U.S. AD Petitions and Japanese Iron & Steel Export Prices 1990~2000



Based on appendix A 1.5 and A 1.8.

Following the initiations of AD investigations in 1992, in 1993 Japanese iron and steel export quantity fell by 42 percent,⁶⁰ which is far more than the 5 percent increase in prices can explain.⁶¹ At the same time as export quantities plummeted, table 5.1 shows four affirmative preliminary DOC determinations (i.e. goods were found to be dumped) were published in the Federal Register. AD duties are most often imposed on the date on which DOC gives notice of its positive preliminary determination and exports are therefore likely to react to these determinations, since the duties will lead to higher prices on targeted goods.

⁶⁰ See appendix 1.8

⁶¹ See appendix 1.8

Table 5.1 U.S. AD Determinations in Cases Petitioned against Japan 1990~1999

	AD	AD	ITC Prel		DOC Prel		DOC Final		ITC Final		AD	Total
	Petitions	Investigations	aff	neg	aff	neg	aff	neg	aff	neg	Orders	
1990												0
1991												0
1992	5	5	3	2								10
1993	3	2	2		4		3		1	2	1	15
1994	2	3	3		3		3		1	1	1	15
1995	1	1	1		1		2		2	1	2	10
1996					1		1		1		1	4
1997	2	2	1	1								4
1998	3	3	3		2		1		1		1	11
1999	7	7	7		6		4		2	1	2	29
2000					3		6		5	2	5	21
Total	23	23	20	3	20	0	20	0	13	7	13	119

AD Investigations: Shows how many AD investigations were initiated.

ITC/DOC Prel: Preliminary ITC/DOC determinations in AD cases.

ITC/DOC Final: Final ITC/DOC determinations in AD cases.

aff/neg: Affirmative/negative ITC/DOC determinations in AD cases.

Note: An affirmative determination means goods were found to be dumped.

Summary of appendix 1.5

After the surge in AD petitions in 1992, the annual amount of petitions against Japanese iron and steel steadily decreased and did not increase again until in 1997. Yet, in 1994 Japanese iron and steel prices plummeted by 36 percent and exports increased 131 percent.⁶² The falling demand for protection despite the price fall and the significant increase in export quantity could indicate the initial uncertainty, created by the laps of the VRAs in 1992, gradually abated. Another explanation to the lack of response to the falling prices and increasing exports could be that other types of goods, which were not competing with any domestic producers, were being exported to the U.S.

In 1997 and 1998 Japanese iron and steel prices fell considerably, and were record low by 1998. Exports increased by 37 percent in 1997, and by another 191 percent in 1998.⁶³ The reaction did not wait long and U.S. producers responded by once again turning to the AD measure for protection. In 1998 three new AD petitions were filed against Japanese iron and steel, and seven more followed in 1999.

A comparison of figure 5.2 and table 5.1 shows, the significant fall in Japanese iron and steel export quantity in 1999 was correlated with a large number of affirmative DOC

⁶² See appendix 1.8

⁶³ See appendix 1.8

preliminary determinations. Figure 5.3 shows the price increase was relatively moderate. In 1999, six affirmative DOC preliminary determinations were published in the Federal Register, all resulting in preliminary duties,⁶⁴ and exports plummeted by 65 percent while prices increased by 4 percent. It was the largest amount of preliminary AD duties to be issued in one single year between 1990 and 2000, and it was accompanied by the most severe fall in Japanese iron and steel export quantities recorded during the same period.

The fall in export quantities were considerable relative the increase in prices in both 1993 and 1999. This is likely explained by the fact that a higher price, caused by AD duties will not be visible in trade statistics, but will nonetheless result in a higher price, dampening demand.

Prices tended to increase once a final AD order was issued, i.e. when final duties were imposed. The larger the amount of AD orders were, the more prices tended to increase. In 1993 only one order was issued as a result of the five initiated AD investigations, and in 1999 only two orders were issued.⁶⁵ Prices increased in both 1993 and 1999, but the increases were relatively moderate, as can be seen in figure 5.3 and appendix 1.5. In 2000, when five AD orders were issued, prices increased significantly, by 24 percent.⁶⁶

This indicates prices are more affected by the final outcome of the investigations rather than the preliminary outcomes. The price increase following AD orders may indicate that targeted producers are reluctant to raise prices as long as there is a chance of being acquitted. There is however also reason to believe that targeted imports are blocked by the relatively high duties associated with the AD investigations.⁶⁷ If the duties were high enough it is possible that the exports became impossible to sell and as a consequence, producers may have switched to other types of iron and steel exports. The price increase could indicate a quality change in the exports. In order to ascertain if producers actually raised prices or switched to other types of exports, an analysis of more disaggregated data is necessary. This is however beyond the purpose of this paper.

The correlation, between significant falls in export levels and large amounts of affirmative DOC preliminary determinations, indicates AD investigations have a significant impact on trade whether or not a final AD duty is levied. This is generally referred to as the “harassment effect” of AD.⁶⁸ Producers’ success rate in achieving protection may therefore be

⁶⁴ The preliminary duties ranged from 12 to 108 percent. See appendix 1.5 and 1.6

⁶⁵ The final duties ranged from 29 to 58 percent. See table 5.1, and appendix 1.5 and 1.6

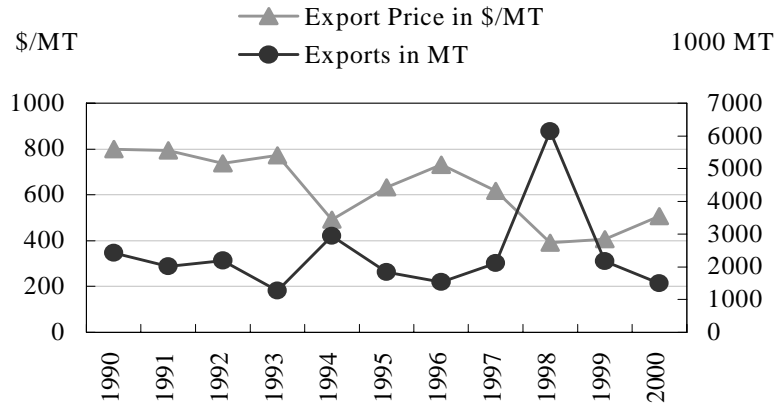
⁶⁶ The final duties ranged from 11 to 108 percent. See table 5.1, appendix 1.5 and 1.6

⁶⁷ Mutoh, Free Trade Center, Jan. 25, 2001

⁶⁸ Prusa (1999), p. 15

grossly underestimated if one only considers the final outcomes of AD investigations. Further, table 4.3, in the previous chapter, suggests the amount of preliminary duties have increased after 1995 and this implies the investigations have become more restrictive.

Figure 5.4 Japanese Iron & Steel: Export Quantities & Prices 1990 ~ 2000



Based on appendix 1.8

Figure 5.4, illustrates the increase in export quantity was extraordinary compared to the price fall in 1998. The exaggerated export level in 1998 was likely caused by speculation on the importers behalf.⁶⁹ Total U.S. import of steel in 1998 outstripped demand by almost 40 percent, and an explanation to the excessive import of steel is that importers brought in and warehoused large amounts of steel at low prices to avoid problems associated with future trade cases.⁷⁰ The excess inventories continued to depress prices even after imports began to decline, and were not worked off until the following year, in the first half of 1999.⁷¹ This could further explain why the Japanese iron and steel prices increased significantly more in 2000 than in 1999. This implies the fear of trade cases not only exacerbated the situation in 1998 by leading to an exaggerated import level but also had a more long term effect on prices as well.

⁶⁹ Global Steel Report, pp. 21 and 33

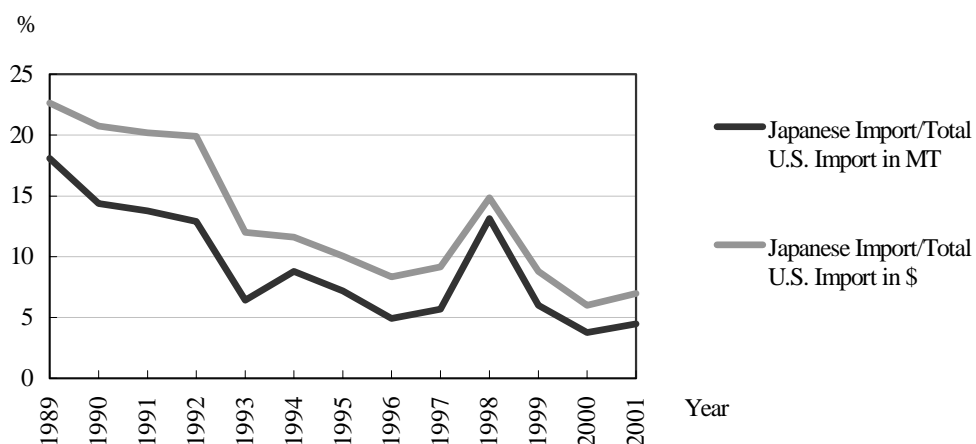
⁷⁰ Global Steel Report, p. 21

⁷¹ Global Steel Report, p. 115

5.4 Market Penetration 1989 ~ 2001

Figure 5.5 illustrates the development of Japan's share of total U.S. iron and steel import between 1989 and 2001, based on HTSUS import data. See appendix 1.7 for exact percentages.

Figure 5.5 Japan's Share of Total U.S. Iron & Steel Import 1989 ~ 2001



Based on appendix 1.7

MT: metric tons

\$: U.S. dollars

The figure shows Japan has been losing import shares during most part of the 1990's. The only major exception was 1998 when Japan increased its share of total U.S. import of iron and steel significantly. Although the increase was considerable the import share reached in 1998 did not match those experienced in the early 1990's. Further, the increase was only temporary and Japan continued to lose its share of total U.S. iron and steel import, reaching an all-time low in 2000.

A comparison of table 5.1 and figure above shows that following large amounts of positive DOC preliminary determinations as in 1993 and 1999, Japan's share of total U.S. iron and steel imports has fallen drastically. In 2000 when a large amount of AD orders were issued against Japanese iron and steel, Japan's import penetration deteriorated further. This implies both the preliminary and final AD duties caused trade diversion. The larger loss of import shares in 1999 indicates the AD investigations with or without a duty have a significant trade diverting effect.

6 Conclusions

The AD measure, as it is designed today, is unfortunately quite illogical and confusing – the rationale of AD says one thing but in practice the measure fails to reflect the rationale that is supposed to justify its existence. The definition of ‘normal value’ and the methodologies used in the AD investigations, make it seemingly difficult to lend credibility to the claims that the targeted trade is unfair or detrimental to an economy. The design of the AD measure does not allow a distinction between prices that reflect comparative advantage and those that are a result of artificially created advantages. It is further of serious doubt if the AD investigations can prove price discrimination much less closed markets considering the methodologies used in the majority of the cases. The situation is not improved by the fact that AD investigations neither consider if markets actual are closed, nor try to assess the economy wide effect of a duty.

Suspicion against trade and uncertainty seem important factors affecting demand for protection. The suspicion against low prices and trade is demonstrated by the historical correlation between demand for AD investigations in the U.S. and large trade imbalances. The correlation was also evident in the case of the iron and steel trade between the U.S. and Japan. When the Japanese yen has fallen against the U.S. dollar demand for AD investigations has increased. It is perhaps not surprising that demand for protection increases when Japanese imports become cheaper, but considering AD supposedly targets unfair trade it is concerning to see a relationship between exchange rate fluctuations and AD investigations.

Uncertainty is another factor that seems to affect demand for protection, and thereby the amount of AD investigations. In 1992, when the VRAs lapsed, demand for protection against Japanese iron and steel increased significantly, despite stable import quantities and prices of these goods. As a result, a large number of investigations were initiated and although only one AD order was issued a majority of the cases resulted in preliminary duties.

The fact that suspicion and uncertainty seem to determine the amount of AD investigations is concerning because as shown in this paper, increases in investigations have generally tended to increase the amount of preliminary and final duties. Both preliminary and

final duties were found to effect trade considerably. This further shows the importance of AD legislation and methodologies targeting truly unfair trade if it is not to be a protectionist measure.

It was found that large numbers of positive preliminary DOC determinations caused Japanese iron and steel export quantities to fall significantly and also led to trade diversion. This was clearly seen in both 1993 and 1999, and it shows the AD investigations were able to significantly restrict targeted trade even before the investigations were actually concluded with or without a final AD order. Prices tended to increase once the investigations were concluded and final AD orders were issued. It is however difficult to say if the price increases were a result of deliberate price increases on the exporters behalf or if it was a result of quality changes in the exports. An analysis of more disaggregated data would be necessary to be able to ascertain what caused the actual increases.

The findings made in this paper suggest the AD investigations, with or without a final AD order, seriously affected Japanese iron and steel exports, but were less successful in affecting total imports of iron and steel. This in turn indicates the AD investigations caused trade diversion, and from the U.S. steel sector's point of view, the specific protection is likely to have proved largely inefficient.

An interesting finding was that the large amount of U.S. AD investigations in 1999 seem to have exacerbated the import surge in 1998 which also affected prices. Far more iron and steel was imported to the U.S. than what was demanded for consumption. Although prices were low in 1998, it was found that far more iron and steel was exported from Japan to the U.S. than what can be explained by either the price level or the price fall. The import surge in 1998 was likely caused by speculation. Importers, fearing future trade disputes, are believed to have brought in large quantities of iron and steel, which further put a downward pressure on prices. Once the excess iron and steel had been worked off prices increased significantly.

Far from opening markets to trade the AD measure is more likely to seal markets off, and increase uncertainty in world trade. It could perhaps be argued that if a country was to "open up to trade" the risk of being targeted by AD investigations would decrease, but considering the current design of the AD measure this seems quite unlikely. There is also an overwhelming risk that the strategy of using the AD measure as a mean to open up foreign markets will backfire. Recent figures show the U.S. is, after China, the second largest target of AD investigations in the world. Is this then proof of the U.S. being one of the most closed

markets in the world? So far the increasing use of AD in the world has not shown a tendency to open up markets, rather countries are adopting the AD legislation in an attempt to discourage other countries to use it against them.

The flexibility of the AD measure, which was demonstrated during the 1998 Steel Crisis, is also concerning. Due to political pressure from the U.S. steel sector during the crisis, the AD measure was altered in order to make it easier for U.S. producers to seek and obtain protection. As a result various initiatives were taken by the U.S. government to assist the troubled steel sector and later the protection and assistance was expanded to assist other sectors as well. This shows it is difficult for governments to restrict the use of this measure and also that when demanded they have a hard time withstanding the pressure from the protection-seeking sector.

From an economical point of view protection for a limited period of time may be economically justifiable and preferable, since it can ease the pains usually associated with change and resource reallocations. Examples of the AD measure being used as a pressure valve was seen both in 1992 and 1998-1999, when the U.S. experienced significant increases in iron and steel imports. The AD measure is however a poor form of safeguard policy because it fails to incorporate the economic wide impact of the targeted imports.⁷² If it had, the outcome of the investigations are likely to have been quite different considering the U.S. steel input industries employ 40 times the amount of workers as does the steel output industries. A problem with the AD measure as a safeguard policy is also that it places all blame on the targeted trade. Duties are levied because trade is unfair, not because domestic producers are in need of assistance and time to adapt.

⁷² Finger, Ng, and Wangchuk (2001)

Appendix 1 - Data

1.1 U.S. Determinations in AD Investigations 1980-1999

Year	Petitions	Initiations	Determinations		Duty Orders	Revocations
			Preliminary	Final		
1980	1	16	7	6	5	2
1981	21	14	10	5	4	8
1982	11	35	21	7	5	1
1983	42	46	30	23	13	2
1984	50	38	34	36	20	8
1985	61	69	54	30	12	16
1986	70	83	52	43	26	8
1987	15	16	45	58	53	9
1988	41	42	35	17	12	0
1989	23	24	23	40	24	5
1990	42	35	25	18	14	10
1991	47	66	43	28	19	7
1992	101	84	54	28	16	1
1993	43	37	67	80	42	3
1994	43	51	46	31	16	28
1995	12	14	23	38	24	12
1996	21	21	16	12	9	6
1997	16	15	16	15	7	4
1998	36	36	28	17	9	25
1999	46	46	34	37	19	48
Total	742	788	663	569	349	203

Source: U.S. DOC

1.2 U.S. AD Orders in Effect by Dec. 31, 2000, across Countries

Country	AD Orders	1995 - 2000*
CHINA	39	10
JAPAN	34	15
TAIWAN	19	7
KOREA	15	6
BRAZIL	12	
ITALY	12	
GERMANY	10	
FRANCE	9	
INDIA	7	
MEXICO	7	2
CANADA	6	
ARGENTINA	5	
UNITED KINGDOM	5	
INDONESIA	4	4
RUSSIA (incl.former USSR)	4	
THAILAND	4	
TURKEY	4	
BELGIUM	3	
ROMANIA	3	
SPAIN	3	
CHILE	2	
SOUTH AFRICA	2	
SWEDEN	2	
AUSTRALIA	1	
BANGLADESH	1	
BELARUS	1	
CZECH REPUBLIC	1	
ESTONIA	1	
FINLAND	1	
IRAN	1	
LITHUANIA	1	
MALAYSIA	1	
NETHERLANDS	1	
NORWAY	1	
POLAND	1	
SINGAPORE	1	
TAJKISTAN	1	
TURMENISTAN	1	
UKRAINE	1	
UZBEKISTAN	1	
Total	228	

* AD orders issued as a result of cases petitioned between 1995 and 2000. Number of orders are presented for the six countries with the largest amount of orders against them.

Source: U.S. DOC

1.3 U.S. AD Petitions by Countries 1990-1999

No.	Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total 1995-1999	Total 1990-1999
1	JAPAN	6	3	7	5	2	3	3	2	3	8	19	42
2	CHINA	7	6	5	8	10	2	7		1	6	16	52
3	KOREA	1	3	10	2	2	1	1	2	4	6	14	32
4	TAIWAN	3	4	5	1	1	1	2	2	4	2	11	25
5	INDONESIA							1		2	4	7	7
6	MEXICO	1	2	7	2	2	1	1		3	1	6	20
7	GERMANY	4	2	5		2	1		2	1	1	5	18
8	ITALY	1		6	2	2	1		1	2	1	5	16
9	CANADA		4	6	1				2	3		5	16
10	INDIA	1	1	4	1	1				3	1	4	12
11	RUSSIA (incl.former USSR)		1	1		2		1		1	2	4	8
12	SOUTH AFRICA					1		1		1	2	4	5
13	BRAZIL	2	2	7	5	1				2	1	3	20
14	SPAIN		1	2	2	1			1	1	1	3	9
15	TURKEY	1	1				1	1			1	3	5
16	UNITED KINGDOM	4		6		1	1			1		2	13
17	FRANCE	1		6	1	1				1	1	2	11
18	VENEZUELA		2	1	2	1			1		1	2	8
19	CHILE	1							1	1		2	3
20	CZECH REPUBLIC										2	2	2
21	ARGENTINA	2	1	2		2					1	1	8
22	THAILAND	1	1		1	4					1	1	8
23	BELGIUM	1		2		1				1		1	5
24	AUSTRIA	1	1	1		1		1				1	5
25	UKRAINE			1	1	1		1				1	4
26	ROMANIA		1	1							1	1	3
27	SWEDEN			1					1			1	2
28	TRINIDAD & TOBAGO				1				1			1	2
29	KAZAKHSTAN			1				1				1	2
30	MACEDONIA										1	1	1

No.	Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total 1995-1999	Total 1990-1999
31	SLOVAKIA										1	1	1
32	DENMARK									1		1	1
33	NETHERLANDS	1	1	2	2							0	6
34	COSTA RICA			3	1							0	4
35	PORTUGAL			3	1							0	4
36	MALAYSIA		1		1	1						0	3
37	HUNGARY		1	1	1							0	3
38	ISRAEL				1	1						0	2
39	AUSTRALIA			2								0	2
40	FINLAND	1		1								0	2
41	POLAND		1	1								0	2
42	YUGOSLAVIA		2									0	2
43	NORWAY	1	1									0	2
44	SINGAPORE	1	1									0	2
45	COLOMBIA					1						0	1
46	ECUADOR					1						0	1
47	EGYPT				1							0	1
48	LUXEMBURG			1								0	1
49	HONG KONG		1									0	1
50	NEW ZEALAND		1									0	1
51	BANGLADESH		1									0	1
	Total	42	47	101	43	43	12	21	16	36	46	131	405

Source: U.S. DOC

1.4 U.S. AD Investigations against Japan, by Products 1990-2000

The cases have been sorted by date of petition.

Year	Case No.	Product Name	No. of Cases per Year
1990	A-588-813	Multi-Angle Laser Light Scattering Instruments	6
	A-588-814	Polyethylene Terephthalate (PET) Film	
	A-588-815	Gray Portland Cement and Cement Clinker	
	A-588-816	Benzyl Paraben	
	A-588-817	Flat Panel Displays	
1991	A-588-818	Personal Word Processors	3
	A-588-819	Hand-Held Aspheric Indirect Ophthalmoscopy Lenses	
	A-588-820	Minivans	
1992	A-588-821	Commercial Microwave Ovens	7
	A-588-822	New Steel Rails over 30 kg/meter	
	A-588-823	Professional Electric Cuttin/Sanding/Grinding Tools	
	A-588-824	Hot-Rolled Carbon Steel Flat Products	
	A-588-825	Cold-Rolled Carbon Steel Flat Products	
	A-588-826	Corrosion-Resistant Carbon Steel Flat Products	
	A-588-827	Cut-to-Length Carbon Steel Plate	
1993	A-588-828	Dry Film Photoresist	5
	A-588-829	Defrost Timers	
	A-588-830	Steel Wire Rod, Carbon and Alloy	
	A-588-831	Grain-Oriented Electrical Steel	
	A-588-832	Color Negative Photo Papaer and Chemical Components	
1994	A-588-833	Stainless Steel Bar	2
	A-588-834	Stainless Steel Angle	
1995	A-588-835	Oil Country Tublar Goods	3
	A-588-836	Polyvinyl Alcohol	
	A-588-837	Large Newspaper Printing Presses and Components	
1996	A-588-838	Clad Steel Plate	3
	A-588-839	Sodium Azike	
	A-588-840	Gas Turbo Compressors	
1997	A-588-841	Vector Super Computers	2
	A-588-842	Wire for Needle Bearings	
1998	A-588-843	Stainless Steel Wire Rod	3
	A-588-844	Stainless Steel Round Wire	
	A-588-845	Stainless Steel Sheet and Strip in Coils	
1999	A-588-846	Hot-Rolled Carbon-Quality Steel Plate	8
	A-588-847	Cut-to-Length Carbon-Quality Steel Products	
	A-588-848	Aperture Masks	
	A-588-849	Cold-Rolled Flat-Rolled Carbon -Quatlity Steel Products	
	A-588-850	Line and Pressure Pipe, Large Diameter Seamless	
	A-588-851	Line and Pressure Pipe, Small Diameter Seamless	
	A-588-852	Structural Steel Beams	
	A-588-853	Circular Seamless Stainless Steel Hollow Products	
A-588-854	Certain Tin Mill Products		
2000	A-588-855	Steel Concrete Reinforcing Bars	2
	A-588-856	Stainless Steel Angles (still under investigation)	

AD orders in effect by Dec. 31, 2000

Iron and steel products are in bold text.

Source: U.S. DOC; Free Trade Center, Japan

1.5 U.S. Determinations in AD Investigations against Japanese Iron & Steel 1990-2000

Case No.	Product	Initiated	ITC Prel.	DOC Prel.	DOC Final	ITC Final	DOC AD Order
A-588-822	New Steel Rails	92 05 28	92 06 23*				
A-588-824	Hot-Rolled Carbon Steel Flat Products (Hot-Rolled Sheet and Strip)	92 07 29	92 08 21	93 02 04	93 07 09	93 08 18*	
A-588-825	Cold-Rolled Carbon Steel Flat Products (Cold-Rolled Sheet and Strip)	92 07 29	92 08 21	93 02 04	93 07 09	93 08 18*	
A-588-826	Corrosion-Resistant Carbon Steel Flat Products	92 07 29	92 08 21	93 02 04	93 07 09	93 08 18	93 08 19
A-588-827	Carbon Steel Plate	92 07 29	92 08 21*				
A-588-830	Carbon and Alloy Steel Wire Rod (Steel Wire Rod)	93 05 19	93 06 16	93 11 29	94 02 09	94 04 06*	
A-588-831	Grain-Oriented Electrical Steel	93 09 21	93 10 20	94 02 09	94 04 25	94 06 02	94 06 10
A-588-833	Stainless Steel Bar	94 01 27	94 02 23	94 08 04	94 12 28	95 02 17	95 02 21
A-588-834	Stainless Steel Angles	94 05 04	94 06 02	94 11 10	95 03 31	95 05 17*	
A-588-835	Oil Country Tubular Goods	94 07 26	94 08 24	95 02 02	95 06 28	95 08 10	95 08 11
A-588-838	Clad Steel Plate	95 10 25	95 12 06	96 02 28	96 05 09	96 07 03	96 07 02
A-588-842	Needle Bearing Wire	97 03 13	97 04 10*				
A-588-843	Stainless Steel Wire Rod	97 08 26	97 09 24	98 03 05	98 07 29	98 09 16	98 09 15
A-588-844	Stainless Steel Round Wire	98 05 12	98 06 18	98 11 18	99 04 09	99 05 26*	
A-588-845	Stainless Steel Sheet and Strip in Coils	98 07 13	98 08 05	99 01 04	99 06 08	99 07 28	99 07 27
A-588-846	Hot-Rolled Flat-Rolled Carbon (Quality Steel Products)	98 10 22	98 11 25	99 02 19	99 05 06	99 06 23	99 06 29
A-588-847	Certain Cut-to-length Steel Plate	99 03 16	99 04 08	99 07 29	99 12 19	00 02 10	00 02 10
A-588-849	Cold-Rolled Flat-Rolled Carbon (Quality Steel Products)	99 06 25	99 07 30	99 11 05	00 02 04	00 03 20*	
A-588-850	Large Diameter Carbon and Alloy Seamless Standard, Alloy and Pressure Pipe	99 07 28	99 08 27	99 12 14	00 05 04	00 06 26	00 06 26
A-588-851	Small Diameter Carbon and Alloy Seamless Standard, Alloy and Pressure Pipe	99 07 28	99 08 27	99 12 14	00 05 04	00 06 26	00 06 26
A-588-852	Structural Steel Beams	99 08 03	99 09 01	00 02 11	00 04 25	00 06 19	00 06 19
A-588-853	Circular Seamless Stainless Steel Hollow Products	99 11 19	99 12 21	00 05 01	00 07 12	00 08 30*	
A-588-854	Tin Mill Products	99 11 30	99 12 21	00 04 12	00 06 26	00 08 16	00 08 28
A-588-855	Steel Concrete Reinforcing Bars	00 07 25	00 08 23*				
A-588-856	Stainless Steel Angles (still under investigation)	00 09 14	00 10 11				

AD orders in effect on Dec. 31, 2000

* negative finding leading to termination of investigation

Prel. Preliminary Determination

Final Final Determination

The cases have been sorted by date of petition, see previous page.

Source: Fair Trade Center, Japan

1.6 A U.S. AD Duties against Japanese Steel 1995-1999

Note: The cases have been sorted by date of petition.
The duties are expressed in percent

Year	Product Name	Companies	Preliminary Duty	Final Duty	
1995	A-588-838 HTS 4-digit level	Clad Steel Plate 7210	Japan Steel Company All Others	118.53 118.53	118.53 118.53
	A-588-842 HTS 4-digit level	Wire for Needle Bearings 7229	(terminated)		
1997	A-588-843 HTS 4-digit level	Stainless Steel Wire Rod 7221	Daido Steel Co., Ltd. Nippon Steel Corporation Hitachi Metals Ltd. Sanyo Special Steel Co., Ltd. Sumitomo Electric Industries Co., Ltd. All Others	31.38 24.41 27.81 31.38 31.38 26.69	34.21 21.18 0.00 34.21 34.21 25.25
	A-588-844 HTS 4-digit level	Stainless Steel Round Wire 7223	Nippon Seisen Suzuki All Others	29.56 29.56 15.20	
	A-588-845 HTS 4-digit level	Stainless Steel Sheet and Strip in Coils 7219 7220	Kawasaki Steel Corporation Nippon Steel Corporation Nisshin Steel Co., Ltd. Nippon Yakin Kogyo Nippon Metal Industries All Others	48.41 24.94 57.87 53.20 57.93 35.61	40.18 57.18 57.18 57.87 57.87 40.18
	A-588-846 HTS 4-digit level	Hot-Rolled Carbon-Quality Steel Plate 7208 7210 7211 7212 7225 7226	Nippon Steel Corporation NKK Corporation Kawasaki Steel Corporation All Others	24.14 30.63 67.59 35.06	19.65 17.86 67.14 29.30

AD orders in effect on Dec. 31, 2000

"All others" applies to all Japanese exporters not specifically listed.

1999

A-588-847 HTS 4-digit level	Cut-to-Length Carbon-Quality Steel Products 7208 7210 7211 7212 7225 7226	Kawasaki Steel Corporation Kobe Steel, Ltd Nippon Steel Corporation NKK Corporation Sumitomo Metal Industries, Ltd All Others	11.70 59.12 59.12 59.12 59.12 11.70	10.78 59.12 59.12 59.12 59.12 10.78
A-588-849 HTS 4-digit level	Cold-Rolled Flat-Rolled Carbon-Quality Steel Products 7209 7210 7211 7212 7225 7226	Nippon Steel Corporation Kawasaki Steel Corporation Kobe Steel, Ltd Nisshin Steel Co., Ltd. All Others	53.04 53.04 53.04 53.04 39.28	
A-588-850 HTS 4-digit level	Line and Pressure Pipe, Large Diameter Seamless 7304	Nippon Steel Corporation Kawasaki Steel Corporation Sumitomo Metal Industries, Ltd All Others	107.80 107.80 107.80 68.88	107.80 107.80 107.80 68.88
A-588-851 HTS 4-digit level	Line and Pressure Pipe, Small Diameter Seamless 7304	Nippon Steel Corporation Kawasaki Steel Corporation Sumitomo Metal Industries, Ltd All Others	106.07 106.07 106.07 70.43	106.80 106.80 106.80 70.43
A-588-852 HTS 4-digit level	Structural Steel Beams 7216 7228	Kawasaki Steel Corporation Nippon Steel Corporation NKK Corporation/ TOA Steel Co., Ltd Sumitomo Metal Industries, Ltd Tokyo Steel Manufacturing Co., Ltd Tokyo Industries, Limited All Others	65.21 65.21 65.21 65.21 65.21 65.21 31.98	65.21 65.21 65.21 65.21 65.21 65.21 31.98
A-588-853 HTS 4-digit level	Circular Seamless Stainless Steel Hollow Products 7304	Sanyo Special Tube Sumitomo Metal Industries All Others	156.81 156.81 62.14	
A-588-854 HTS 4-digit level	Tin Mill Products 7210 7212 7225 7226	Kawasaki Steel Corporation Nippon Steel Corporation NKK Corporation Tokyo Kohan All Others	95.29 95.29 95.29 95.29 32.52	95.27 95.27 95.27 95.27 32.52

Source: U.S. DOC; Free Trade Center, Japan; Federal Register, U.S.

1.6 B Summary of 1.6 A

AD Duties in %	10~19	20~39	40~59	60~79	80~99	100~119	120~139	140~159	Total Number of Duties	Average Duty	Median Duty
All											
Preliminary orders	3	16	12	10	4	8	0	2	55	62	59
as % of Total	5	29	22	18	7	15	0	4			
Final orders	4	8	10	9	4	8	0	0	43	63	59
as % of Total	9	19	23	21	9	19	0	0			
Company specific											
Preliminary orders	1	10	12	7	4	7	0	2	43	67	59
as % of Total	2	23	28	16	9	16	0	5			
Final orders	3	4	9	7	4	7	0	0	34*	67	65
as % of Total	9	12	26	21	12	21	0	0			
Non-specific											
Preliminary orders	2	6	0	3	0	1	0	0	12	46	35
as % of Total	17	50	0	25	0	8	0	0			
Final orders	1	4	1	2	0	1	0	0	9	48	33
as % of Total	11	44	11	22	0	11	0	0			

* According to the Federal Register the dumping margin in case no. A-588-843 against Hitachi Metals Ltd. was found to be 0 and was therefore excluded in the calculations.

Based on information in 1.6 A.

1.7 HTSUS: U.S. Iron & Steel Imports 1989-2001

HTSUS 72: Iron & steel

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Mean	Median
CPI (1995=100)	\$	81	86	89	92	95	97	100	103	105	107	109	113	116		

U.S. Imports from the World

Quantity in thousands of MT	MT	16,245	16,383	14,892	17,595	20,590	31,417	27,243	32,125	34,164	45,039	41,064	42,014	33,087		
	Δ		1	-9	18	17	53	-13	18	6	32	-9	2	-21	8	4
Value of Export in millions of \$	nominal	8,588	7,917	7,201	7,970	8,533	12,333	12,285	13,123	13,689	16,262	12,904	14,665	10,484		
	real	10,555	9,232	8,057	8,658	9,000	12,683	12,285	12,747	12,998	15,204	11,804	12,979	9,022		
	Δ		-13	-13	7	4	41	-3	4	2	17	-22	10	-30		
Real Prices (1995)	\$/MT	650	564	541	492	437	404	451	397	380	338	287	309	273		
	Δ		-13	-4	-9	-11	-8	12	-12	-4	-11	-15	7	-12	-7	-10

U.S. Imports from Japan

Quantity in thousands of MT	MT	2,936	2,355	2,051	2,272	1,324	2,763	1,959	1,580	1,946	5,917	2,462	1,583	1,485		
	Δ		-20	-13	11	-42	109	-29	-19	23	204	-58	-36	-6	10	-16
Value of Export in millions of \$	nominal	1,945	1,642	1,453	1,585	1,026	1,432	1,235	1,096	1,253	2,414	1,135	882	731		
	real	2,391	1,915	1,626	1,721	1,082	1,473	1,235	1,065	1,189	2,257	1,038	781	629		
	Δ		-20	-15	6	-37	36	-16	-14	12	90	-54	-25	-19		
Real Prices (1995)	\$/MT	814	813	793	758	817	533	630	674	611	381	422	493	423		
	Δ		0	-3	-4	8	-35	18	7	-9	-38	11	17	-14	-4	-1

Market Penetration in % - Japan's Share of total U.S. Iron and Steel Trade

(Imports from Japan/U.S. Imports from the World)

Imports in MT	18	14	14	13	6	9	7	5	6	13	6	4	4	8	7
Imports in \$	23	21	20	20	12	12	10	8	9	15	9	6	7	12	11

CPI: consumer price index \$: U.S. Dollars
 Δ : change in percent MT: metric ton

Source: USITC; U.S. Department of Labor Statistics

1.8 JPHTS: Japanes Iron & Steel Exports to the U.S. 1990-2000

JPHTS 72: Iron & steel		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Mean	Median	
CPI	¥	94	97	98	99	100	100	100	102	103	102	102			
	\$	86	89	92	95	97	100	103	105	107	109	113			
Exchange Rate	¥/\$	147	139	133	121	107	96	101	115	125	126	109			
Quantity in thousands of MT	MT	2,422	2,017	2,195	1,269	2,936	1,835	1,537	2,109	6,141	2,172	1,495			
	△		-17	9	-42	131	-38	-16	37	191	-65	-31	16	-16	
Value of Exports in billions of yen	nominal	243	198	197	112	150	111	116	158	320	122	93			
	real	260	205	201	113	149	111	116	155	312	119	92			
	△		-21	-2	-44	32	-25	4	33	102	-62	-23	-1	-12	
Value of Export in millions of \$	nominal	1,660	1,431	1,488	930	1,404	1,160	1,156	1,370	2,567	965	857			
	real	1,936	1,601	1,617	981	1,444	1,160	1,123	1,301	2,401	883	758			
	△		-17	1	-39	47	-20	-3	16	84	-63	-14	-1	-9	
Real Prices (1995)	¥	#####	#####	91,610	89,160	50,886	60,700	75,548	73,337	50,782	54,804	61,577			
	△			-5	-10	-3	-43	19	24	-3	-31	8	12	-3	-3
	\$	799	794	737	772	492	632	731	617	391	407	507			
	△			-1	-7	5	-36	29	16	-16	-37	4	25	-2	2

CPI: consumer price index

△ : change in percent

¥ : Japanese yen

\$: U.S. Dollars

MT: metric ton

Value of exports in U.S. dollars was calculated using original values in yen.

Prices were calculated using value of exports divided by quantity in MT.

Real price was calculated by using nominal prices and CPI.

1 Billion=1000 000 000

Source: MOF, Finance Print, Japan; Bank of Japan; U.S. Department of Labor Statistics; Statistics Bureau & Statistics Center, Japan

Appendix 2 - Additional Readings

2.1 The 1998 U.S. Steel Crisis

In 1998, the year of the U.S. steel crisis, the falling prices on iron and steel imports and the record high import level caused domestic turmoil and massive protests against unfair trade in the U.S. Imports increased by 31 percent (32 according to HTSUS import statistics, see appendix 1.7) and roughly 10000 people lost their jobs in the steel sector.¹

Real prices on iron and steel have however been falling for most part of the 1990s with the exception of 1995 and 2000, when prices went up by 12 and 7 percent respectively. The continuous fall in iron and steel prices suggests falling prices are due to an increasing efficiency in the world steel industry rather than unfair trade.

Import quantities increased significantly in 1998, by 32 percent, but it was not the largest increase during the studied period. In 1994 iron and steel imports increased even more, by 53 percent. The import level experienced in 1998 was however record high at 45 billion tons, whereas in 1994, the U.S. imported 31 billion tons of iron and steel.

Since 1980 steel employment has been downsized 60 percent despite the protection offered, to the steel sector, through the years. The decline in employment has rather been correlated with falling man-hours required per ton of steel output, i.e. increasing productivity, than falling production.² This indicates that protection against imports will have a small impact on employment in the case of U.S. steel. In fact when import penetration declined between 1984 and 1992, and quantitative restrictions on imported steel were imposed, employment fell by 78300 jobs. This equals an annual average of almost 10000 lost jobs.³

While the “1998 U.S. Steel Crisis” caused domestic turmoil, there are factors speaking against the claim there was a major crisis. American steel mills increased their share of global production in 1998, still supplied more than two-thirds of domestic steel consumption, and 11 of the 13 largest U.S. mills were profitable in 1998. Even when the crisis was at its deepest during the fourth quarter of 1998, 9 of these 13 were still profitable. By February 1999

¹ Global Steel Report, p. 16; Lindsey, Griswold and Lukas (1999), p. 2

² Lindsey, Griswold and Lukas (1999), p. 7; Global Steel Report, pp. 16-17

³ Lindsey, Griswold and Lukas (1999), p. 8

imports were below the average monthly pre-crisis level and 45 percent below November imports.⁴

One should also bear in mind that U.S. steel mills themselves accounted for roughly 20 percent of the 1998 imports, and that workers in the major steel-using sectors (transportation equipment, industrial machinery, fabricated metal products, and construction) outnumber workers in the steel industry by 40 to 1. This implies the U.S. is likely to have benefited from the lower prices. Further, the U.S. economy continued to be strong and grew almost 4 % annually in both 1997 and 1998 despite the financial crisis in Asia and the worldwide economic slowdown that followed.⁵

2.2 U.S. Response to the 1998 Steel Crisis - Key Elements

In 1998 prices on iron and steel imports fell to the lowest level experienced during the 1990s, imports increased by 31 percent and roughly 10000 people lost their jobs in the steel sector.⁶ As a result of the steel crisis in 1998 demands for stronger actions against rising steel imports in the form of immediate quotas on steel products and changes to the trade laws that would make it easier to seek and obtain relief were put forward by the U.S. steel workers, unions and producers. As a result, the U.S. Department of Commerce (DOC) developed a multi-pronged approach to deal with the surge in low priced imports focusing on three key elements – vigorous enforcement of U.S. trade laws, bilateral efforts to address the underlying problems that led to the crisis, and import monitoring mechanisms.⁷

Vigorous Enforcement of U.S. Trade Laws

The DOC expedited investigations and issued early critical circumstances findings. The deadlines were shortened for respondent's questionnaire responses, briefs and oral arguments. In certain situation the DOC prescribed that it could make early critical circumstances determination prior to the preliminary dumping determination, hereby putting importers on notice in cases of potential import surges that they might be liable for duties in the period prior to the preliminary determination. An affirmative critical circumstances determination

⁴ Lindsey, Griswold and Lukas (1999), p. 2

⁵ WTO Trade Policy Review "Overview of Development in the International Trading Environment" (1999), p. 6

⁶ Global Steel Report, p. 16; Lindsey, Griswold and Lukas (1999), p. 2

extends the liability for potential duties retroactively, up to ninety days prior to the preliminary dumping determination. This policy was applied by the DOC in the, November 1998, hot-rolled steel investigations against Japan and Russia.

The Section 201 was also available to the steel industry to address the import surge and the import relief provisions under a Section 201 proceeding can result in potentially broad remedies, including quotas. Relief under this procedure is however provided regardless of whether the imports are unfairly traded or not and the standard of injury is higher than in the AD investigation. During the ten years prior to the crisis only three affirmative Section 201 determinations were made by the ITC and only two were granted relief. Due to perceived lower success rate, most segments of the steel industry instead turned to the AD and countervailing duty laws for relief while pushing for changes to Section 201. Since then three of four Section 201 cases filed with the ITC resulted in affirmative findings and two of the affirmative cases pertained to steel products.⁸

Bilateral Efforts to Address the Underlying Problems that Led to the Crisis

The U.S. Trade Representatives (USTR) launched consultations with Japan and Korea to remedy core structural problems, and the DOC negotiated a comprehensive agreement to address steel imports from Russia. The DOC also agreed to provide technical assistance to Russia and Ukraine, designed to help avoid trade disputes.

Import Monitoring Mechanism

Improved reporting of steel import data to aid early detection of import surges or sudden price drops and in order to provide the steel industry with reliable import data the DOC took the step of releasing preliminary monthly steel import data, three or four weeks before the release of the official import statistics.

Further assistance was also offered through the Congress' Emergency Loan Guarantee Program, designed to temporarily provide financing to troubled steel companies unable to obtain loans at reasonable rates. Later the program was expanded to address troubled

⁷ Global Steel Report, p. 107-111.

⁸ Global Steel Report, p. 111. The relevant time period is believed to be 1998-2000 considering the information for the Report was gathered between September 1999 and June 2000.

companies in the oil, gas, and iron ore industries, and the Emergency Loan Guaranty Bill was signed into law.

2.3 Japanese Steel

Administrative guidance was used, by the Ministry of International Trade and Industry (MITI), as a mean to implement VERs, coordinate activities of various industries, and organize cartels. The days of legally organized cartels were over by the 1990s but both coordination and guidance are still believed to be an inherent part of the Japanese steel industry. Further, it is suspected that administrative guidance and industry associations produce the same results as formal cartels.⁹

It is noted in the Global Steel Report that the Japanese steel producers are generally recognized as efficient in terms of both labor and total factor productivity, but no attempts were made to further analyze this issue. The efficiency is surprising since a high level of protection is generally associated with inefficiency resulting in less international competitiveness. Weinstein's (1995)¹⁰ empirical study of the impact of Japanese cartel and coordination policies concluded the effect on prices and margins were limited. Prices did not increase much and margins actually fell. Three principle reasons for the lack of greater impact on price and margin offered by Weinstein's findings will be briefly presented, they explain not only the lack of obvious impact but also sheds light on the steel industry's efficiency despite the protection offered to the sector. First, due to MITI's limited resources to enforce compliance for the vast majority of the cartels, the ability to change firm behavior was probably limited by cartel members and nonmember undercutting cartel prices or not following recommended productions reductions. Weinstein paper also indicate that several other studies by other authors conclude that there has been little evidence of effects on prices despite many of these cartels were designed to raise prices. Correlation between reduction requests and actual reductions showed more ambiguous results and it seems to be difficult to assess how much of the reductions were a result of the government requests and how much of the reductions were due to MITI setting targets in line with what the industry would have done anyway. The lack of evidence that prices rose faster under the depressed industry cartels

⁹ Global Steel Report, p. 72

¹⁰ Reprinted in Milhaupt et al (2001), p. 541

of the late 1970s and early 1980's suggests that there probably was no major change in pricing and production behavior.

Secondly, both price and quality showed some increase, and this indicates cartels were not capable of preventing competition in quality. The cartel policy may not have been very effective in influencing price and margins but the influence on cost and quality may have been of greater importance – thereby assisting efficiency.¹¹ Many recession and designated industry cartels contained both horizontal restraints and provisions for joint cost reductions, joint marketing, and quality improvements, this in turn may have caused firms to lower prices if the cartels served to reduce their costs. If these effects dominated restraints on trade cartels are likely to have resulted in reduced prices. At the same time the increase in price and quality indicate a switch from price to quality competition that likely had a negligible impact on margins but a positive effect on price and demand.

Finally, Japanese cartels were only a component in a broader industrial policy toward declining sectors. The steel sector was one of the most cartelized sectors, enjoyed among the highest rates of subsidization, and the lowest rates of taxes in manufacturing. These policies are likely to have driven down firm costs or increased profitability, and may have worked to reduce optimal cartel prices and reduce firm margins thorough delayed exit, new entry, or changes in optimal margins.

2.4 Cartels in Japan

This section is a brief summary of David E. Weinstein's (1995) empirical analysis of the successfulness of cartels and guidance, which was reprinted in Milhaupt et al. (2001).

Japan's cartel policy was a result of the MITI's belief that the Japanese government had the ability and the duty to guide Japanese industry. These bureaucrats argued that maintaining a certain level of profitability during downturns was necessary to allow investment in new equipment and technologies since investment was largely financed out of current cash flow. In addition to the fact that many Japanese firms seem to be dependent on their cash flow, "tight financial market regulations often forced banks to ration capital at the regulated interest rate and may have contributed to an inability of Japanese firms to find funding sources for new projects."¹²

¹¹ Author's comment.

¹² Weinstein (1995) reprinted in Milhaupt et al. (2001), p. 541

MITI has been known to form recession, administrative guidance, rationalization, export, small and medium enterprise, and designated cartels. MITI often formed recession cartels or issued administrative guidance that coordinated reductions in sales or capacity and often mandated increases in prices in response to short-term cyclical downturns. These cartels were usually left in place for under a year to avoid widespread bankruptcies. The difference between these two types of cartels was one of formality, recession cartels had a clear legal base and represented a very clear policy of intervention while administrative guidance cartels were extra-legal interventions by MITI into the affairs of an industry.

Rationalization cartels coordinated changes in production technology that would enhance efficiency and although they never covered firm pricing and production they sometimes did specify capacity reduction. Export cartels often lasted for years and were justified as attempts to prevent dumping and raise prices in foreign markets. Designated cartels were formed when an industry faced a more permanent decline in demand and lasted for about five years. It should be noticed that since the early 1970s the legally sanctioned cartels have fallen drastically.

Weinstein comments that the exemptions from the virtually defunct Anti-Monopoly Law seem in comparison to the favorable tax treatment, subsidies, protection, and low-interest loans that some sectors received, like relatively a mild form of government intervention. Further, MITI lacked resources to enforce compliance for the vast majority of the cartels. Due to long history of failed cartels in Japan MITI used its guidance to cover price, production, and capacity. Assuring compliance was however a major problem and sometimes involved scrapping equipment and sealing moving parts of machinery to ensure that capacity reductions were met. Export cartels were likely to have worked the best because they were the easiest to monitor and recession cartels and designated industry cartels were monitored to some degree but the vast majority of the Japanese cartels were basically unsupervised.

Weinsteins analysis found MITI's guidance and cartel policies impact on firm behavior was limited - prices did not rise much and margins actually fell. This was believed to be due to the limited ability of the government to change firm behavior of cartel members undercutting cartel prices or not following recommended production reductions. This more than likely made it difficult for cartels to effectively raise prices more than a few percent. Further, evidence on recession cartels showed both prices and quality rose to some degree, indicating cartels were not able to prevent firms from competing in quality thereby driving down their own margins. Also, other policies such as tax relief and subsidies may have worked to reduce firm margins though delayed exit, new entry, or changes in optimal margins.

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