Volume Title: The Political Economy of American Trade Policy

Volume Author/Editor: Anne O. Krueger, ed.

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-45489-4

Volume URL: http://www.nber.org/books/krue96-1

Conference Date: February 3-4, 1994

Publication Date: January 1996

Chapter Title: Steel Protection in the 1980s: The Waning Influens of Big Steel?

Chapter Author: Michael O. Moore

Chapter URL: http://www.nber.org/chapters/c8704

Chapter pages in book: (p. 73 - 132)

2 Steel Protection in the 1980s: The Waning Influence of Big Steel?

Michael O. Moore

2.1 Introduction

Over the last three decades, giant vertically integrated companies such as U.S. Steel, LTV, and Bethlehem and their union counterpart, the United Steelworkers of America (USW), have faced extreme economic difficulty. Total steel sector employment has fallen from 512,000 in 1974 to only 140,000 in 1992 and many of these so-called integrated firms have filed for bankruptcy, permanently closed mills, or severely curtailed production. These changes have caused enormous disruptions, especially in traditional steel-making regions of the Midwest.

The integrated industry and its allies have argued that unfair foreign competition is the principal source of the industry's economic decline. This argument has been bolstered by the widely acknowledged presence of pervasive foreign government steel subsidies, in both the industrialized and developing worlds. These subsidies, combined with a structural slowdown in world steel demand, have contributed to worldwide overcapacity in steel that persists in 1994. Foreign firms, the steel industry has argued consistently, have dealt with this overcapacity by "dumping" excess production into the United States.

The U.S. industry has attempted to secure government intervention to overcome the alleged injury caused by these foreign practices. Congress has passed certain limited provisions designed to help the industry, but large-scale domestic intervention has not been forthcoming. Instead, the industry has focused

Michael O. Moore is associate professor of economics and international affairs at the Elliott School of International Affairs at George Washington University.

The author thanks Bill Lane, Cameron Griffith, Jack Sheehan, and Laird Patterson for their help on this project. Special thanks go to Art Stern for his help compiling statistics on steel imports and to Jeff Alexander and Dana Stryk for their invaluable research assistance. The author also acknowledges the insightful comments of both Jim Markusen and Mike Moskow. The views expressed herein are strictly the author's.

most its efforts on arguing for an aggressive unilateral U.S. steel trade policy to counter international economic pressures. In pursuing this trade policy goal, the integrated industry has used nearly every available path to limit the flow of imported steel products into the United States. These avenues have included pressuring Congress for direct legislative relief, lobbying the executive branch for multilateral steel agreements (MSAs), and, most important, filing literally hundreds of petitions under the trade remedy laws. The steel industry's use of the antidumping (AD) and countervailing duty (CVD) laws has been particularly successful, given the extent of foreign subsidies.

Many outside observers do not dispute the existence of foreign subsidies but question their overriding importance. Instead, they point to other origins of the U.S. steel sector's crisis. Crandall (1981) and Adams and Mueller (1986) assert that self-inflicted ills and increased domestic competition are the main source of the integrated steel industry's difficulties. Specific problems cited have included slowness to adopt new technologies (such as continuous casting and basic-oxygen furnaces), overly generous labor contracts (such as the Experimental Negotiating Agreement of the 1970s), and outdated management techniques. Intensified domestic competition has emerged from the expanding importance of domestic minimills and the growing number of integrated competitors. Finally, falling steel demand has caused further deterioration in the domestic industry's economic fortunes.

The integrated industry has generally won these public policy debates. Over the years, a "steel triangle" comprising steelworkers, integrated steel firms, and steel-community congressional representatives has consistently dominated steel import policy. The result has been three decades replete with import restrictions of various kinds (see table 2.1), though with mixed results in permanently aiding the sector's competitiveness. Principal protectionist episodes have included the 1969 voluntary restraint agreement (VRA), the trigger price mechanism (TPM) in the Carter administration, and a series of VRAs negotiated in the 1980s. Thus, the steel industry has managed to obtain import restrictions from Democratic and Republican administrations, in peace and in wartime, and in years of both a growing and a contracting economy.

A common aspect of these episodes has been that the integrated steel sector has secured intervention outside the normal administrative protection (AP) procedures of U.S. trade law. The standard steel industry approach is to use, or threaten to use, the relatively nondiscretionary AD and CVD processes as a lever to obtain an agreement providing some degree of U.S. price stability. First, integrated steel producers (often with close cooperation of the USW) file massive petitions under U.S. trade remedy laws, especially AD and CVD petitions. Such petitions have particular appeal for the steel industry because foreign practices have made successful litigation likely. An additional attraction for the steel sector is that these rules-based procedures include no presidential discretion whatsoever. Parallel to the trade remedy cases, congressional supporters of the steel industry propose quota legislation inconsistent

Table 2.1 Chronology of Steel Trade Events

1969	Negotiation of VRAs with European Community and Japan (scheduled to last until 1974)
1977	Inauguration of TPM for all steel imports
January 1982	Dozens of AD and CVD petitions filed against EC countries
October 1982	Negotiation of VRA with European Community (scheduled to last through December 1985)
January 1984	Escape clause petition filed by Bethlehem Steel and USW
July 1984	ITC rules affirmatively in the escape clause petition in five of nine product categories (affirmative: sheet and strip, plate, structural shapes, wire and wire products, and semifinished steel; negative: pipe and tube, bar, rod, and rails)
September 1984	Negotiation of VRAs on all nine steel products in escape clause petition; market share for participating nations of 18.4 percent (set to end in September 1989)
November 1988	Candidate Bush promises to continue VRA
July 1989	President Bush announces Steel Liberalization Program: (a) 2.5 years VRA extension, (b) 1 percent annual increase for countries willing to stop unfair practices (up to 20.9 percent by March 1992), and (c) negotiations for MSA begun to remove "trade-distorting" steel practices
April 1992	Termination of VRA; breakdown of MSA over allowable ("green light") subsidies
June 1992	AD and CVD petitions filed against flat-rolled products
July 1993	ITC rules affirmatively only on a subset of steel industry petitions

with the General Agreement on Tariffs and Trade (GATT). Before the quasi-judicial AP process can grind to completion and prior to final votes on the legislation, the executive branch will urge the steel industry to accept a negotiated settlement with foreign exporters, usually a VRA. This sequence was repeated with slight variation in 1969, 1977, 1982, and 1984. In essence, the rules-based AP procedures have been utilized as a credible threat to force political settlements of steel disputes.

This impressive string of protectionist victories has led many observers to use the steel industry as perhaps the prime example, along with textiles, of a U.S. manufacturing industry whose political clout is so extensive that it can "always" obtain protection. "Big Steel," composed of about a half-dozen vertically integrated producers and the USW, seemed always capable of profoundly influencing steel trade policy.

Perhaps the most impressive of these trade policy victories came in 1984. The industry was finally able to obtain one of its important long-term trade policy goals—comprehensive quotas on steel imports, administered on a country- and product-specific basis. In addition, this decidedly nonmarket outcome was wrested from the free-market–oriented Reagan administration.

Despite the success in securing the global 1984 VRA, evidence will be presented below that this managed trade agreement represents the high point of the integrated steel sector's ability to influence trade policy. This is clear from two separate outcomes. The first is the battle over the VRA extension in 1989.

While the VRA was formally extended for two and a half years, the results were hardly what the steel industry wanted. Specifically, the steel industry did not obtain a five-year extension of the VRA as requested, did not obtain a tightening of the quota, and, in the event, the VRA was not binding neither on a product or country basis for the vast majority of the extension. The second piece of evidence of falling political clout is the failure to obtain meaningful protection after the VRA expired in April 1992. The steel industry secured neither an extension of the VRA (a goal of the USW) nor an international consensus on steel policy through a multilateral steel agreement (a goal of both steel producers and the USW). The industry instead was forced to litigate AD and CVD cases to final outcomes. Since this is largely an impartial process and devoid of obvious means to apply outside pressure, the industry's choice of pursuing a nonpolitical route to its final conclusion also reflects the integrated steel sector's self-perception of reduced political clout. In the end, even the AP cases were highly unsatisfactory. Contrary to industry expectations, the AP route was only partially successful in 1993 in securing permanent high duties on foreign steel. Indeed, at the end of 1993, the domestic steel industry has less steel protection than at any time since 1977.

This reduced political influence reflects the radically changed nature of the domestic U.S. steel industry. A number of factors stand out.

First, no longer does a small group of mammoth steel companies dominate the domestic market. The fragmentation of the domestic industry has eroded one of the most important traditional political advantages of the industry, namely, a cohesive coalition with shared interests.

The most important example of this fragmentation is the growing importance of "minimills." Minimills, a relatively new market form, are small, innovative steel companies that use the latest technologies and frequently use incentive-based labor compensation schemes with a nonunionized workforce. These minimills have been less likely to support specific protection-seeking efforts by the integrated firms, especially since they generally produce a different product line than the integrated firms. Thus, minimill and integrated mill interests only partially coincide. A further complication for the integrated sector's position is that the CEO of the most successful U.S. minimill (Nucor) is a passionate and very vocal free trader.

The industrial structure of the U.S. industry has been changed further by so-called reconstituted mills. These mills have arisen out of integrated firms selling off parts of their operations in order to lower costs. Many of these plants have continued to operate, thereby creating further competition for the integrated firms. Finally, a number of foreign steel firms, especially Japanese, have purchased a part or controlling share in integrated firms. Examples include NKK's purchase of a controlling interest in National Steel and Kawasaki Steel's joint ownership of Armco's carbon steel division (U.S. International Trade Commission [USITC] 1989a).

The restructured U.S. industry is also increasingly competitive internation-

ally, which further weakens the argument that the industry deserves special import protection. In the 1980s, integrated firms modernized facilities and the USW negotiated wage concessions. In addition, the declining value of the dollar in the second half of the decade contributed to the U.S. industry's improved international position.

While the downsized industry has improved its competitive position, the declining number of steelworkers has weakened the political base of the steel sector in Congress. Many traditional steel-producing cities such as Pittsburgh no longer host major integrated steel plants, each of which formerly employed thousands of workers. This both reduces the absolute number of steel industry voters and lessens the number of congressional districts where steel is an important economic factor.

The other factor is the growing importance of organized steel-user groups lobbying against steel protection. This occurred most prominently in 1989 when the integrated industry faced organized *domestic* opposition in the form of the Coalition of American Steel-Using Manufacturers (CASUM), an industrial steel-user group that argued against the extension of the VRA. They argued that the VRA program threatened more American jobs than it protected and foreign producers received extra profits in the quota-protected market. These arguments seem to have been effective, not only on their own merits, but also because the politically weakened integrated steel sector was less able to dominate the steel import policy discussions.

The goal of this paper is to document this waning political influence of Big Steel. The paper will concentrate on the carbon steel subsector since this is by far the largest segment of the domestic steel industry. However, many of the same issues are present in the specialty and stainless steel sectors.

The remainder of this paper is organized in the following way. Section 2.2 will briefly discuss the technical aspects of the industry that will prove vital for later discussion. Section 2.3 will outline a basic political economy framework used in the analysis. This will include a discussion of the various options available to the industry for protection and the relative advantages and disadvantages of each. A short history of the steel trade policy and the economic conditions of the steel sector up to 1982 is presented in section 2.4. Section 2.5 provides a detailed look at the genesis of the 1984 VRA, the battle over the 1989 extension, the refusal of the Bush administration to extend the VRA in 1992, and the outcome of the AD and CVD cases in the summer of 1993. Conclusions are provided in section 2.6.

2.2 Technology and Market Structure of the U.S. Steel Industry

The market structure of the industry has played a particularly important role in the integrated steel sector's effectiveness in influencing import policy. Most important, economies of scale and geographical concentration have resulted in the traditional political cohesion of the steel industry actors. Thus, we turn first

to the basic economic relationships in the industry before discussing the political economy of the steel industry. We will see later that the changing market structure of the industry in the 1970s and 1980s has been a critical aspect of the industry's declining political power.

Crude steel is produced by combining iron ore and carbon as well as other constituent elements through a number of different processes. Using traditional methods, coke (a processed form of coal produced in coke ovens) is combined in a blast furnace to produce molten pig iron. Pig iron is then transferred to a furnace where other materials are added which results in crude steel. The molten crude steel is then cast into ingots, which are rolled into blooms, billets, and slabs. These intermediate products are reheated and rolled into final products such as sheet, bars, and plate. The defining feature of an "integrated" mill is that all of these steps take place at one location.

Integrated steel making has undergone relatively few major changes in the past 40 years. The two most important innovations have been the basic-oxygen furnace (BOF), which is more efficient than open-hearth furnaces (OHF), and continuous casting, which eliminates the reheating of ingots and intermediate rolling (Gold et al. 1984).

The nature of the modern integrated steel-making process, which requires coke ovens, blast furnaces, BOFs, as well as casting and rolling facilities, creates important scale economies. The minimum efficient scale of a new integrated plant is about 7 million tons of capacity per year, which represents about 7 percent of total U.S. steel consumption (Barnett and Crandall 1993). Lumpy investment and high start-up costs of a new integrated mill obviously act as important impediments to entry by new integrated firms.

High fixed costs also acted as a deterrent to entry in other ways. Specifically, integrated firms have strong incentives to maintain high capacity utilization in order to keep average costs low. In periods of weak demand, established firms therefore will have an incentive to price below average *total* costs, to the extreme disadvantage of new entrants. The pressure to compete aggressively on price has been a persistent problem of large-scale steel operations for over a century. Consequently, steel firms all over the world have responded to this tendency to price below total costs by implementing various methods to maintain price stability. Cartel arrangements, at both the domestic and international levels, have been especially important.[1]

Another important feature of integrated production has been its geographic concentration. Approximately 54 percent of U.S. steel capacity was located in Pennsylvania, Ohio, and Indiana in 1965 (American Iron and Steel Institute [AISI], 1969). This pattern was repeated in the United Kingdom (e.g., Manchester) and in continental Europe (e.g., the Ruhr valley). The reasons for this

1. U.S. Steel, for example, used to act as a price leader and residual supplier so that prices would not fall in times of low demand. See Adams and Mueller (1986) for details. For a discussion about international cartel arrangements, especially before World War II, see Gillingham (1991).

Table 2.2 **U.S. Steel Industry in the Domestic Economy (million tons unless otherwise noted)**

Year	Steel Imports	Import Market Share (%)	Total Steel Production	Apparent Final Steel Consumption	Steel Sector Employment (thousands)	Real Domestic Steel Sales (billion 1982–84 $)	Steel/GDP[a]
1960	3.3	4.7	99.2	71.5	572	48.0	0.036
1964	6.4	7.3	127.1	87.9	555	52.9	0.038
1968	17.9	16.7	131.4	107.6	552	53.4	0.038
1974	13.4	15.9	145.7	119.6	512	77.5	0.037
1977	19.3	17.8	125.3	108.4	452	65.5	0.031
1981	18.9	19.8	120.8	105.4	391	47.4	0.027
1982	16.6	21.8	74.5	76.3	289	29.2	0.020
1984	26.2	26.4	92.5	98.9	236	28.9	0.024
1989	17.3	17.9	97.9	102.7	169	25.4	0.021
1990	17.1	17.5	98.9	97.5	164	23.4	0.020
1991	15.8	17.9	87.9	88.3	146	19.7	0.018
1992	17.1	18.0	92.9	95	140	18.9	0.018

Sources: AISI (varous issues); *Economic Report of the President* (1993).

[a]Steel/GDP = steel consumption (million tons)/GDP (billion 1987 $).

concentration were twofold. First, the high costs of transporting iron and coal meant that steel facilities clustered in areas with easy access to these raw materials. Second, high transportation costs of the finished product made competitive pricing outside a limited geographical area difficult.

International trading patterns in steel were affected by transportation costs as well. Transoceanic shipping costs were critical impediments to imported steel's becoming a threat to the U.S. steel industry for many decades. However, as these costs fell in the 1960s and war-ravaged industrial economies rebuilt, imports into the United States began to rise. As table 2.2 shows, imports, which in 1960 reached only 3.3 million tons or 4.7 percent of the U.S. market, soared to 17.9 million tons by 1968 and a 16.7 percent domestic market share.

Despite the growing importance of foreign steel sources, the large traditional steel producers continued their domination of the domestic market for many years. Table 2.3 indicates that in 1979 the eight largest integrated steel makers still controlled nearly two-thirds of the domestic market. However, technological changes and the low price of scrap steel encouraged the rise of minimills in the 1970s. Their emergence would remake the internal market structure of the U.S. steel industry.

Minimills are relatively simple operations, especially in comparison to an integrated steelworks. A standard minimill consists of an electric-arc furnace (EAF), a continuous caster, and a rolling mill. Minimills do not produce raw steel but instead melt steel scrap using high-temperature EAFs. The molten steel is cast and then rolled to produce final steel products in similar fashion to an integrated mill. However, because minimills have only recently emerged,

Table 2.3 **Estimated Market Share of U.S. Participants**

Type	1979			1991		
	Number of Firms	Shipments	Share (%)	Number of Firms	Shipments	Share (%)
Major integrated mills	8	73.4	64	5	30.3	34
Reconstituted mills	0	0	0	15	22.4	25
Other traditional mills	20	17.7	15	6	3.5	4
Minimills	48	8.2	7	52	21.3	24
Specialty steel mills	10	1.0	1	9	1.5	2
Domestic total		100.3	87		79	89
Imports		17.5	15		15.7	18
Exports		2.8	2		6.5	7
Total market		115	100		88.2	100

Source: World Steel Dynamics (1992).
Note: Shipments in million tons.

they use efficient continuous casters almost exclusively, in stark contrast to most older integrated works that continue to produce ingots.[2]

Because minimills do not actually make steel but instead recycle scrap, they do not need expensive coke ovens and blast furnaces and have no incentive to locate near iron or coal supplies. The minimum efficient scale for an EAF is therefore much smaller than for a BOF, which lowers capital costs significantly. In fact, few minimill operations have a capacity exceeding 1 million tons per year.

The minimills have differed from their integrated competitors in other important ways. Since nearness to iron and coal supplies is irrelevant to minimills, they are free to position themselves near the end market, undercutting the integrated mills further by reducing transportation costs. This means that minimills are relatively unconcentrated geographically. This fact, combined with small workforces, implies that no community relies on a minimill as a prime source of large-scale regional employment, in sharp contrast to the integrated sector.

Minimills have also adopted new labor and management techniques. Flexible work rules and incentive-based pay for both their nonunion and union workforces have reduced unit labor costs and increased productivity. Minimill labor costs are lower also because their relatively young workforces result in much lower health and pension costs than their integrated rivals that still struggle with the "legacy" costs of retired production workers (especially after the massive layoffs of the 1980s). The low capital costs also allow the minimills to build plants with relatively short lifespans, thereby allowing for more timely introduction of new technologies (Barnett and Crandall 1986, 20).

The success of the minimills in the U.S. market has been remarkable. Table

2. For a comparison of minimill and integrated mill production techniques, see Hogan (1987).

2.3 indicates that, according to one estimate, minimills were shipping 8.2 million tons of steel in 1979. This represented 7 percent of the U.S. domestic market. By 1991, minimill shipments had risen to 21.3 million tons and 24 percent of the market. This increased market share came almost exclusively at the expense of the integrated sector. Major and minor integrated firms represented 79 percent of the market in 1979 but fell to 63 percent in 1991. Imports, on the other hand, grew from only 15 percent to 18 percent of the U.S. market.

Profit rates for the minimill sector have also been very impressive. Minimills have operated more profitably than the integrated sector in every year for which disaggregated data are available. In addition, the industrywide figures indicate that, while the integrated firms lost money in 1985, 1986, and 1991, minimills were posting net gains in each year. This general pattern was also true in the early 1980s, when minimills were more profitable than integrated mills in head-to-head competition in individual product categories (USITC 1984).

Minimills have traditionally been "niche" producers. They have focused their efforts on "long" products such as wire, rod, and bars. The cost advantage of the minimills has led to near domination of these product lines. For example, estimates in table 2.4 indicate that the minimill share of domestic wire rod shipments will grow from 86 percent in 1990 to 100 percent by 2000.

Despite these important cost advantages, significant constraints have precluded the minimills from repeating this success in other product lines. The most important constraint is the use of scrap as a feedstock. This leads to more impurities in the final product than in steel produced by integrated mills. This lower quality of output has dramatically reduced the use of minimill steel in flat-rolled products destined for home appliances and automobile bodies. Consequently, integrated firms have continued to dominate the domestic shipments of these high value-added "flat" products.

Unfortunately for the integrated mills, recent technological advances mean

Table 2.4 **Estimated Minimill Share of Domestic Production[a] (by product category)**

Category	1980	1985	1990	2000
Semifinished slab	0	0	5	20
Long products				
Wire rods	45	80	86	100
Merchant bars	37	60	65	85
Rails	0	0	0	100
Flat products				
Plate	15	20	25	45
Hot-rolled sheet	0	0	2	35
Cold-rolled sheet	0	0	1.5	15
Electrogalvanized	0	0	0	0

Source: Donald Barnett/Economic Associates Inc.

[a]Minimill figures include some independent firms that do not use EAFS.

that minimills may soon be able to compete effectively in flat-rolled products as well. Some minimills have begun to experiment with the use of directly reduced iron and iron carbide as feedstocks, both of which reduce reliance on scrap and significantly increase the quality of EAF output. New techniques such as thin-slab casting will also increase the ability of minimills to produce sheet and plate competitively. For example, Nucor inaugurated a 1 million ton sheet mill using thin-slab casters in 1989 and followed with another sheet mill in Hickman, Arkansas, that will produce 2 million tons per year by the end of 1994 (*Financial Times,* July 8, 1993).[3] Many analysts see continued strong performance of the minimills in the flat-rolled market. Minimill operators themselves predicted in 1993 that up to 45 percent of the flat-rolled market would be provided by EAF minimill operations by 2001 (*Iron Age* 1993).

In summary, the internal market structure of the U.S. steel sector has undergone substantial evolution over the last two decades. Minimills have created enormous pressure on the integrated mills and have almost completely driven the major firms out of the long-product markets. The traditional integrated firms having increasingly retreated into flat products. Continued technological progress may mean that the integrated sector will soon be forced to compete with minimills in this end of the market as well.

The rise of the minimill, in essence, has created a steel sector much more in line with economists' vision of a competitive market. The dramatic drop in entry and exit costs means that the U.S. steel sector now hosts many more competitors. Economies of scale have also become much less important. As we will see in sections 2.4 and 2.5 below, this changing domestic market structure has begun to have a significant influence on the integrated mills' ability to shape steel trade policy.

2.3 The Political Economy of Integrated Steel Lobbying

2.3.1 General Political Economy Framework

An agent's influence over public policy depends largely on its ability to consolidate and apply political pressure, the strength of potential opposition, and the available policy options under a nation's institutional and legal structures.

An intervention-seeking agent would prefer a policy so narrowly defined that only that agent receives it. In the case of a firm, this might be a firm-specific tax break or subsidy. This would clearly result in higher returns relative to all of the firm's competitors. However, since only one firm receives the intervention's advantages, the obvious difficulty with this strategy is that the firm

3. With the expansion of the Hickman and Crawfordsville plants, Nucor will become the third largest steel firm in the United States, after U.S. Steel and Bethlehem.

must rely exclusively on its own political muscle to secure the benefit. Very few agents will have enough influence to accomplish this alone.

Usually, agents are forced instead to form multimember coalitions.[4] The most obvious advantages of such coalitions are that lobbying costs can be shared and large numbers of coalition members translate into significant ballot-box clout in a majority-vote–based democracy.

There are, however, certain important disadvantages of large coalitions. First, the coalition must identify others with common interests. The larger the number of possible coalition members, the more costly are efforts to identify and organize them. Many coalition members also create monitoring burdens—each individual member will have an incentive to shirk on lobbying efforts but still retain the benefits of the coalition's lobbying. The possibility of free ridership makes lobbying a less attractive option since the net benefits of the lobbying efforts will be less the fewer the numbers of effort-contributing individuals.

The coalition's success also depends on its cohesiveness and permanence. Do the members cooperate on a permanent basis or do they constantly shift alliances? The more often that the members act in concert, the more likely that each member can develop a reputation and be able to exclude shirkers. In addition, permanent alliances have the political advantage that they are more predictable to vote-seeking politicians who need not try to predict the coalition's strength or policy position. The political strength and positions of a newly formed or ad hoc coalition, on the other hand, are much more difficult to predict. It will be difficult both to gauge the new group's political muscle and whether the coalition will remain intact after the immediate policy issue is resolved.

One solution to these transaction costs is to create permanent institutions that represent the affected members' interests. Examples include trade associations for industry groups and a union for workers. Payment of dues to the association will help overcome free-rider problems. In addition, members only need organize the association once; subsequently, it will act as the coalition's representative so that individual members need not reassemble on each issue to reach decisions.

A particularly important source of coalition cohesion is immobility of factors in an industry.[5] Factor immobility means that all industry participants (labor, management, stockholders, etc.) will find that their economic interests are

4. For the classic treatment of lobbying in multimember coalitions, see Olson (1971).

5. A factor may be incapable of moving to another industry if the factor has some industry-specific attributes. In the case of capital, the machinery may be specialized so that it is useless in other production processes. Similarly, a worker may have developed human capital that cannot be easily transferred to another sector. Factors also may be immobile out of choice—if a factor is gaining rents (i.e., payment above the next best opportunity), that factor may be highly resistant to moving to another, lower-paying, industry.

closely tied to the industry's economic health. If the price of the output rises, incomes for all immobile factors in the industry will rise as well. If the price falls or the price of intermediate inputs rises, the factors suffer a real income loss.

Another way to think usefully about this immobile-factors model is in simple partial equilibrium terms. An increase in the price of an imported product will result in an increase in "producer surplus," or payments to those employed in the import-competing industry. The price increase also means that domestic consumers of the product will pay more for the product and suffer a loss in "consumer surplus." The lasting impact of this price increase on the consumer will depend in part on the characteristics of the product. If the product is a final consumption good, then the consumer may be forced to bear much of the price increase. The effects are more subtle for a protected intermediate input. In particular, if the consuming industry can pass along the increased input costs to its own final consumers, then intermediate input protection will be less damaging. The consuming industry will consequently be unlikely to lobby against the import protection. If instead the consuming industry is a price taker in its market, it will be forced to absorb the cost increases and will be more likely to resist protection. An example of such an industry would be one that competes on a world market as a price taker.

An industry with immobile factors also has a number of distinct advantages when confronting the transaction costs of coalition building identified above. Specifically, coalitions based on fixed factors have low organizing costs since potential coalition partners are easily identifiable. In addition, specific factors are familiar to each other since they are "permanently" in the same industry and deal with each other on many policy and economic issues (e.g., collective bargaining). The familiarity translates into established reputations. These permanently intertwined interests mean that coalition members are less likely to take different positions on other issues facing the industry as a whole. They will have strong economic incentives to ensure that the industry's economic pie is as large as possible.[6]

The consequences of immobile factors for lobbying effort should be clear. The more immobile the factors, the more likely that those factors will have strong incentives to protect the economic interests of the industry as a whole. In addition, the more closely associated the factor is with the industry, the more likely the benefits to lobbying for the industry will outweigh the transaction costs of lobbying. If, on the other hand, factors are mobile, their economic interests will generally not be identifiable with a particular industry. Conse-

6. This cooperation clearly need not extend to intraindustry issues such as arguments over labor contracts, profit sharing, etc. In other words, the fixed factors are likely to be extremely quarrelsome when trying to divide up any benefits that they have won through their cooperation on helping the industry as a whole.

quently, they would be less likely to expend any resources lobbying on the industry's behalf.[7]

The presence of immobile factors not only provides political strength by encouraging the growth of a coalition. It also provides clear signals to politicians seeking to represent their constituents' interests. The reason is that the degree of mobility will help determine whether factors in an industry will speak with "one voice." Immobile factors will generally have an economic incentive to do so, which will help an elected representative avoid choosing to support one constituent group over another.[8]

2.3.2 Application to the Integrated Steel Sector

The highly effective coalition that has developed over the last few decades to limit steel imports has attributes consistent with the successful lobbying characteristics described above. The outstanding feature of the effort has been the stability of the alliance between integrated steel firms and the steelworkers' union. The most important sources of the steel coalition's integrity have been the relatively small number of actors in the group and the immobility of the factors employed in the integrated industry. These two elements have allowed the industry to consistently overcome the transaction costs of organizing an coalition to fight for import barriers.

As outlined in section 2.2 above, the basic economics of the integrated steel sector has contributed greatly to the small number of actors in the traditional industry. As late as 1979, eight producers controlled nearly two-thirds of the domestic market. In addition, the integrated firms had a tradition of cooperating on cartel pricing schemes and had a well-functioning, established trade association in the AISI. The steel sector also was highly unionized through a single union representative, the USW. The existence of these two institutions means that organization costs for lobbying efforts could be kept reasonably low and also significantly reduced the likelihood of free riders within the integrated sector. The actors in the AISI and USW were also quite familiar to one another, either through the trade association, collective bargaining arrangements, or cooperation on other steel-related public policy issues. The combination of familiarity among the steel sector actors and their relatively small number translated into an effective lobbying coalition.

The immobility of steel industry inputs also enhances coalition building in favor of protection. Capital is highly specialized in the steel industry and generally very long lived. The relatively unskilled nature of steelworker tasks and higher than normal compensation for the manufacturing sector mean that eco-

7. An intermediate case where some factors are mobile and others immobile can be found in Mussa (1974). For an extension of this framework to a model with voting behavior in a formal political economy framework, see Mayer (1984).

8. A former trade official with the U.S. government has indicated in an interview that an industry is especially persuasive when labor and management cooperate on trade issues.

nomic rents can be substantial for steelworkers. Steel industry wages have consistently been much higher than average manufacturing wages. This suggests that steelworkers have strong incentives to resist transfer to other occupations. This immobility provides further incentives for steelworkers and capital owners to work together to obtain protection. It also leads to stability of the relationships, which in turn helps the AISI and USW work together effectively.

Labor-management cohesion has also helped the integrated steel sector attract congressional support that is highly effective. This support is decidedly nonpartisan and organized along geographical lines. Prominent industry allies have included both Democrats (e.g., Representative Murtha of Pennsylvania and Senator Rockefeller of West Virginia) and Republicans (e.g., Representative Schulze and Senator Heinz, both of Pennsylvania). The tendency to have strong political support from district- and state-based politicians has been further strengthened by the traditional industry's geographic concentration. The large number of workers concentrated in a few districts and states with many electoral votes leads to substantial political leverage, not only in Congress, but potentially in presidential elections as well.

The traditional inability of domestic steel-*using* industries to organize effectively stands in stark contrast to the integrated sector. Their weaknesses are mirror images of Big Steel's strengths. Most important, the costs of steel protection are widely dispersed across user industries. While protection can raise the costs of steel significantly, steel generally represents only a modest portion of most industries' total input costs. Further impediments include large organizing costs arising out of the large number of firms that use steel as an input. This raises the likelihood of free riding, which further discourages coalition building. Finally, steel users do not have a set of common interests other than steel around which to organize.[9] Consequently, any effort to fight steel protection is almost necessarily ad hoc. This combination of factors means that a coalition against steel protection is unlikely to form and, if it does coalesce, is highly unstable. Finally, the geographical dispersion of steel-using industries has meant that there are few congressional districts where steel users are as important economically as a full-scale integrated steelworks might be. This creates less direct congressional support for steel-using industries in their fight against protection.

2.3.3 Choosing the Avenue to Protection

The steel industry, as any other U.S. import-competing industry, must choose among a host of options when pursuing government intervention. A particular option will be considered only if its benefits, weighted by the probability of success, outweigh the costs of seeking government help. If a number

9. In a 1978 steel trade conference, a representative of a major steel-consuming firm noted that "to represent adequately the viewpoints of a wide range of [steel-using] industries is manifestly impossible" (Williams 1978, 90).

of choices are individually potentially profitable, the industry must then choose the option or combination of options that maximizes expected profits.[10]

The choices available to an integrated steel firm seeking government intervention can be divided into two distinct categories, each with its own advantages and disadvantages. These options include assistance to the integrated sector as a whole and assistance to the entire domestic steel industry.[11]

The former option is clearly the more attractive. A strategy directed narrowly at the integrated sector not only will help the integrated sector compete with imports but also will not benefit the minimill sector. Examples of such intervention include changing the relative regulatory environment (e.g., relaxing pollution requirements for the BOFs used by the integrated firms but maintaining them for EAFs used by minimills), changing the relative price of intermediate inputs (e.g., raising the price of electricity, which will hurt minimills), or changing the relative labor costs (e.g., by reducing the legacy costs of retired production workers, a problem much more severe for the more mature integrated sector than for minimills with their younger workforces). Unfortunately for the integrated firms, most of these efforts to obtain direct benefits have had only limited success.[12]

The integrated firms have been much more successful in obtaining import barriers. Import restrictions, however, have the major drawback that all domestic import-competing firms in the protected industry are equally benefited, whether or not they have contributed to the lobbying effort to secure the restrictions.[13] In the steel industry context, this means that minimills have an incentive to free ride on the efforts of the integrated sector.[14] Even if the integrated producers can narrow the protection to flat-rolled products, where they dominate, the increase in profits will provide further incentive for minimills to solve the technological barriers blocking their entrance into these product lines.

Has the integrated steel industry irrationally pursued free-rider–producing import barriers that help their strongest competitors, domestic minimills? The answer would seem to be "no." While the *benefits* of interventions directed solely at the integrated sector are larger than those from protection, one must also consider other factors when comparing the two paths. In particular, import protection in the United States has two major advantages: (1) the cost of pursuing protection, especially administered protection, is low relative to lobbying

10. See Moore and Suranovic (1992) for an analysis of the welfare implications of an industry choosing between multiple paths to protection.

11. A third option, firm-specific interventions, are the most advantageous to an individual steel producer. As discussed above, these are so difficult to obtain that we ignore them here.

12. Examples of domestic interventions that have helped the integrated sector relative to the minimill sector include "safe harbor" tax deductions in the 1981 Reagan tax plan, transitional "carryback" rules in the 1986 Tax Reform Act, and limited research and development subsidies for integrated steel making. For details, see U.S. Congress, Congressional Budget Office (1987).

13. For a discussion about the free-rider problem of tariffs and lobbying, see Rodrik (1986).

14. See Lenway and Schuler (1991) for an empirical analysis of integrated vs. minimill lobbying activities for import restrictions.

for subsidies and (2) the probability of obtaining protection is much higher than receiving direct government subsidies.

Lobbying costs in the AP process are relatively low mainly because they involve permanent government institutions whose procedures are standardized and transparent. The domestic industry need only file a petition and assemble supporting materials for an import remedy case and let the government incur the balance of the costs. While these AP transaction costs can be quite substantial (and have run into millions of dollars for the steel industry), the costs are known with relative certainty before the effort is begun.

Lobbying for direct intervention, on the other hand, potentially involves much more extensive effort and cost. Most important, domestic intervention requires the passage of separate legislation or convincing the executive branch to reinterpret existing law. Constructing a legislative majority to pass new legislation requires extensive effort and also may open the intervention-seeking industry to the charge that it is receiving special favors. Subsidies are especially problematic since they involve a direct transfer from domestic taxpayers to the industry. Reinterpretation of existing law is perhaps less difficult, but the industry still must have considerable political muscle to convince the executive branch and/or the bureaucracy to change existing regulatory practices. Lobbying for direct relief can also be open ended; no one can know how many resources are necessary to persuade legislators to pass a new law or to convince administrators to change existing procedures.

Another important advantage of import barriers is that protection seekers can characterize the argument as a choice between helping domestic citizens or foreigners. Protection seekers will argue that opponents are abandoning domestic interests in favor of foreign suppliers. Vote-seeking domestic politicians will likely ignore the effects on foreign suppliers' welfare and will concentrate solely on the "benefits" of protection unless domestic consumers can organize effectively. This dynamic changes considerably if the debate concerns a purely domestic intervention. In this case, the arguments are necessarily about internal domestic distribution of income. A subsidy to one industry means that taxpayers must pay and the industry gets special benefits not offered to other sectors. This implies that the political debate will be among competing domestic constituencies, which raises considerably the political costs of supporting one industry.

Consequently, there are strong incentives for the steel industry to pursue a trade-related remedy. The most important trade options include: (1) an unfair trade remedy petition, (2) an escape clause petition, and (3) a VRA.[15]

Two types of unfair trade remedies are available for an import-competing firm. The first is the AD process wherein a domestic firm accuses a foreign

15. Other possible remedies include relief under section 406 (Market Disruption from State Trading Countries), section 301 (Unfair Foreign Trade Practices), and section 232 (National Security Import Restrictions).

firm of either selling in the U.S. market below fully allocated cost (i.e., average total costs) or selling in the U.S. below the price charged in the exporter's home market. The second remedy is the CVD process. In these petitions, the domestic firms allege that a foreign government has provided a grant or subsidy that was intended specifically to increase exports.

Each AD and CVD petition is product and country specific. If two slightly different steel products are allegedly dumped by five separate countries, 10 separate petitions are filed, each of which in principle is adjudicated independently and may receive a separate dumping or subsidy margin.

Under U.S. procedures, the Department of Commerce (DOC) determines the dumping or subsidy margin while the U.S. International Trade Commission (ITC) rules whether the domestic industry is "materially" injured by "reason of" the unfair trade imports. Since 1980, both agencies are also subject to strict statutory deadlines for completion of their investigations.

The AD and CVD procedures progress in a staggered fashion. The ITC first issues a preliminary material injury decision. If the ITC decision is affirmative, the DOC calculates a preliminary dumping or subsidy margin. If the DOC rules affirmatively at its preliminary stage, imports must pay a bond equal to the estimated dumping or subsidy margin. This bond is adjusted in a final DOC determination and becomes a definitive duty only if the ITC rules in a final decision that the dumped or subsidized imports are causing "material" injury. In addition, once the duty is in place, the duty has no specific expiration date. In fact, a number of U.S. AD duties have been in place for over 20 years.

These procedures offer a number of distinct advantages to intervention-seeking firms. For example, the interests of consumers of the imported good are entirely absent from the unfair trade process. The responsible agencies look only at unfair trade margins and injury—no account is made for the costs of imposing retaliatory duties. In addition, the process is relatively automatic and free from overt political considerations; if the DOC and ITC rule affirmatively at a final stage, the final estimated duty is imposed without *any* direct involvement of either the president or any other elected official. This process is, by design, supposed to be a rules-based, nondiscretionary procedure that is immune to political influence. There is considerable evidence that the ITC decision process in particular is remarkably impervious to outside pressures.[16] Finally, the chances of receiving a positive dumping or subsidy margin from the DOC are quite high because of a number of arguably biased procedures.[17]

The AD and CVD processes also offer specific benefits to the integrated

16. There have been a number of empirical studies that have examined whether political pressure can influence ITC decisions. Most authors have found that the ITC basically uses economic criteria consistent with the law in voting on material injury (see, e.g., Devault 1993; Anderson 1993). Moore (1992) also finds such economic factors are preeminent but finds weak evidence that Senate oversight committees may affect the ITC's decisions. Devault and Anderson, using more recent data, find no such evidence.

17. Over the 1980s, over 90 percent of all petitions resulted in a positive margin at the preliminary and/or final stage. This is at least in part a reflection of upwardly biased procedures used by

steel industry. Perhaps most important, there is general recognition that there has been widespread government intervention in steel markets.[18] While there is considerable dispute about the actual effects of these subsidies on the U.S. steel industry, their existence makes positive subsidy margin calculations by the DOC quite likely. In addition, positive AD duties are also highly probable since, as discussed in section 2.2, integrated firms with high fixed costs will often sell below average total costs in recessions.

The steel industry also can use the product- and industry-specific nature of the AD and CVD processes to its advantage. By nature, steel output is highly differentiated. Steel products contain varying levels of alloys and can be heat-treated, cold- or hot-rolled, carbon or stainless. The differentiated nature of the products, combined with the large number of countries that export to the United States, means that the steel industry may choose to file a large number of petitions simultaneously.

Another important advantage of using the AD and CVD processes is the rhetorical high ground that they afford. Since both involve allegations of "unfair" foreign trade practices, industry representatives and their political allies can claim that the industry does not seek protection but instead only consideration of legitimate grievances. Allegations of unfair trading practices can also help blunt complaints that intervention is being awarded to a noncompetitive industry.

There are, however, certain major disadvantages to the unfair trade remedy procedures. Perhaps most important, the unfair trade remedies may offer only limited protection since only a subset of countries may finally be "convicted." This leaves open the possibility of supply diversion from unfettered exporters. The second disadvantage, at least for a politically powerful industry, is that the bureaucratic nature of the process limits direct lobbying. In addition, the product- and country-specific nature of the petitions means that substantial legal costs are necessary since separate cases must be litigated.

The second major option for import restrictions is an escape clause petition. In an escape clause case, the ITC determines whether imports have been a substantial cause of serious, as opposed to material, injury. If the ITC rules affirmatively, it makes recommendations to the president about temporary protection. The president then must decide within a specific time period whether to accept, modify, or reject the ITC's recommendation. If protection is forthcoming, then across-the-board restrictions are imposed on *all* countries' exports of the affected product. Since there is no allegation of unfair trade, the exporting country in principle is offered compensation in the form of lowered

the DOC in calculating the margins. See the contributions in Boltuck and Litan (1991) for a thorough discussion of these procedures.

18. These actions include a steel-led development strategy in many developing countries (e.g., Brazil) and extensive EC attempts to rationalize the steel industry through subsidies, guaranteed loans, input subsidies, guaranteed minimum prices, and production quotas (Howell, Noellert, and Wolfe 1988).

tariffs on other products. If the United States offers no compensation, the GATT recognizes the right of the exporting nation to raise tariffs on U.S. exports in retaliation.

As with the AD and CVD processes, the escape clause offers both advantages and disadvantages to an intervention-seeking industry. The two most important advantages are: (1) the protection is comprehensive and (2) no unfair trade practices need be proved. In addition, the legal costs are potentially lower since only one determination must be made for the entire industry and not for individual products and exporters.

There are, however, important potential drawbacks. First, the industry faces a higher injury standard at the ITC than with unfair trade cases (serious as opposed to material injury). Second, and more important, the president has final discretion about the implemented policy. The president can reject the ITC recommendation for any reason deemed important to the national interest, including foreign policy concerns or national economic interests. This discretion also allows the president to weigh consumer interests in the decision. Third, the protection-seeking industry will benefit, but potentially only at the clear expense of another domestic industry because if the president offers protection under the escape clause, he must offer compensation by lowering other import barriers or face increased duties on another U.S. industry's exports. Either way, another U.S. industry must "pay" for the protection. This will increase the political cost to the president of accepting an affirmative ITC decision and make protection less likely to be granted.

Finally, an industry seeking trade protection can try to engineer a settlement completely outside of the normal U.S. trade policy framework. The most important example of this for an import-competing industry has come to be VRAs. Under such a quantitative restriction, foreign exporters agree to limit their exports to the United States, usually in exchange for the domestic industry refraining from filing trade remedy petitions. The foreign firms receive guaranteed access to the protected market and hence will receive higher profit margins.

A VRA has a number of attributes advantageous to a protection-seeking firm. Most important, the VRA is a quota and thus leads to highly predictable ceilings on foreign competition. VRAs are also not subject to GATT rules so that issues of MFN treatment of imports, compensation for raising GATT-bound tariffs, and injury determinations are all irrelevant. In addition, foreigners will often cooperate in negotiating a VRA since compensation in the form of quota rents is transferred to foreign firms.

A VRA's major disadvantage to the integrated steel sector is that it, like all comprehensive import restrictions, will aid free-riding domestic firms. In addition, unless the VRA is implemented on a narrowly defined product basis, foreign firms will have an incentive to upgrade to higher value-added steel products. Finally, unless *all* foreign suppliers are included, a VRA may simply lead to supply diversion to other non-VRA countries.

2.3.4 Determination of the Intervention Level

The determination of the final intervention level depends on two factors. The first is what intervention is being considered, and the second is the relative political strengths of the opponents and proponents of the intervention.

If U.S. unfair trade procedures are the basis of the intervention, the level of protection is determined exclusively by the dumping or subsidy margin. This leaves little or no room for discretion or political lobbying over the precise duty.

There is substantially more discretion under the escape clause and under a VRA. The president explicitly considers factors other than injury to the import-competing industry in an escape clause petition. The president may also modify the ITC's recommendation in any way he deems appropriate. Similarly, since a VRA is negotiated, the level of protection is necessarily a political decision. Since both the escape clause and a VRA allow political actors to play a role, unlike an unfair trade case, the final intervention level will depend on the relative strengths of opponents and proponents of protection. One would expect therefore that politically powerful industries would seek to obtain protection through either a VRA or escape clause. Politically weak industries would opt instead for AD and CVD procedures.[19]

2.4 Steel Trade Policy prior to 1982

The U.S. integrated steel industry reached the height of its power in the immediate postwar period. During the 1940s and 1950s, the industry invested in new and larger-scale OHF capacity to keep up with wartime demand and the postwar consumer boom. This investment solidified the large integrated firms' lead over both smaller domestic mills and foreign firms in Europe and Japan still struggling with war-ravaged plant and equipment. The industry was therefore able to maintain healthy profits, keep imports low, and be the world's leading steel exporter.

This period of Big Steel economic dominance was accompanied by a highly antagonistic relationship between the U.S. government and the steel firms. The large integrated firms, especially U.S. Steel, were frequently accused of operating a domestic cartel and were targets of antitrust rhetoric, if not action. Specific complaints emerged from the Kefauver Committee in Congress, which claimed that "steel prices since 1947 have moved steadily and regularly in one direction, upward," even in the midst of a recession (Adams and Mueller 1986). The highly charged atmosphere perhaps reached its peak during the Korean War when President Truman unsuccessfully attempted to nationalize

19. Finger, Hall, and Nelson (1982) have distinguished these two as the "political track" and the "technical track" to protection.

the steel industry in 1952. Confrontations continued in 1962 when President Kennedy challenged steel company executives over price increases. Nonetheless, the integrated firms' ability to dominate the domestic market was largely untouched until the mid-1960s.

The seeds of the destruction of the oligopolistic control over the U.S. steel market were sown at the end of the 1950s. In particular, significant steel imports began in 1959 when a 116-day strike severely reduced the domestic availability of steel. Domestic steel-using firms, especially in the automobile industry, were forced to look for the first time to foreign suppliers as an important source of steel. Soon afterward, the United States became a permanent net importer of steel.

As the 1960s wore on, high prices and high demand in the United States caused import market share to surge from 7.3 percent in 1964 to 16.7 percent in 1968. This increase was partly the result of new and efficient foreign production facilities. New European and Japanese capacity, for example, utilized recently developed BOFs, which were significantly more efficient than the plant introduced in the United States a mere 15 years earlier. An overvalued dollar and low wage rates, especially in Japan, were other important factors in the declining competitiveness of U.S. steel. Finally, foreign exports were also encouraged by government support, most notably in Japan. The Japanese government singled out the steel industry as particularly important in its drive to industrialize the nation (see Howell et al. 1988 for details).

The reaction of integrated producers and the USW to the new competitors was to call for import restrictions. During the late days of the Johnson presidency, the administration gave in to the pressure and negotiated in 1969 the first of many VRAs with the European Community and Japan. In exchange, the U.S. steel producers agreed not to pursue administered protection and furthermore argued that they would use the protection to modernize their plants to compete more effectively with imports.

These agreements, however, provided only limited comprehensive import protection. While the VRAs restricted both the European Community and Japan to an overall import level of 5.8 million tons of steel annually, the agreements did not specify the product mix. Consequently, exporters were free to upgrade to higher value-added products, especially from carbon steel to specialty steels. In addition, other countries moved in to replace the displaced Japanese and European steel exports since the quotas were not global. The VRAs remained in force through 1974, when rising steel demand abroad reduced steel exports to the United States.

This reduction in import pressure was soon followed by the 1974–75 worldwide recession. Most of world's steel firms interpreted the recession as a normal cyclical downturn and continued to install new plant. Japanese gross steelmaking capacity expanded from 138 million metric tons in 1974 to 157 million metric tons in 1979. The European Community followed similar trends and

increased steel-making capacity from 178 million to 203 million metric tons in 1979. U.S. steel capacity, on the other hand, remained essentially flat during this period (World Steel Dynamics 1994).

It is clear ex post that the recession of 1974 was also accompanied by a structural shift in world steel demand. Thus, the decisions to continue to add new capacity resulted in vast world overcapacity in steel. Figure 2.1 shows how production capacity in the Western world continued to increase after 1974 even as production fell off strongly from the trend line of the pre-1974 period.

Continued substantial intervention by many nations' governments exacerbated this overcapacity. After the onset of the crisis in 1974, Western European nations with significant public ownership of steel firms (especially France, Belgium, the United Kingdom, and Italy) provided subsidies to slow plant closures. Other EC nations with privately owned firms, especially Germany and the Netherlands, were bitterly opposed to this direct state aid. After an initial attempt to reconcile these differences under the first Davignon Plan, the situation deteriorated sufficiently in 1980 when some nations seriously considered intra-EC barriers in steel, previously unthinkable in the "Common Market." The European Commission subsequently proclaimed a "manifest crisis" and enforced mandatory production quotas and, later, mandatory minimum prices for all steel products. The commission also closely monitored and approved

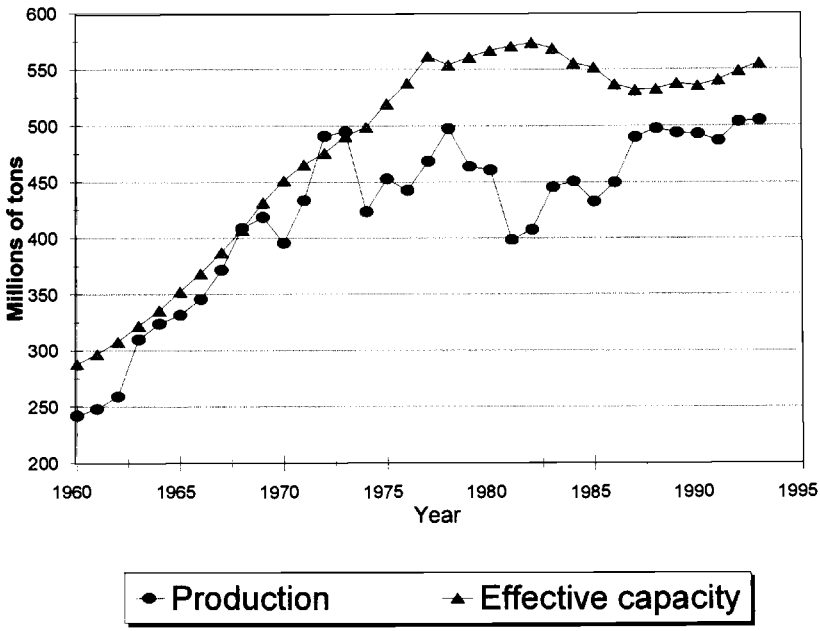

Fig. 2.1 Western world effective steel capacity and production
Source: World Steel Dynamics (1994).

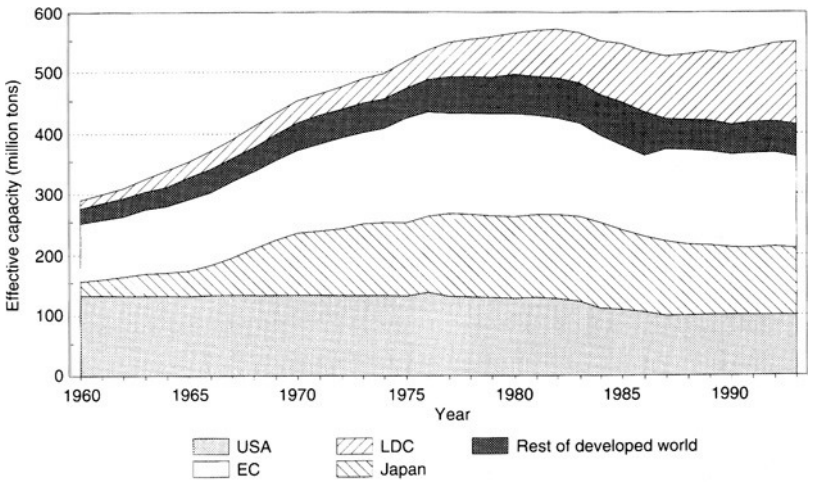

Fig. 2.2 Distribution of western world steel capacity
Source: World Steel Dynamics (1994).

firm investment decisions and endorsed certain state aid to help relieve the crisis situation (Tsoukalis and Schwartz 1985). Nevertheless, significant differences in steel sector subsidies remained among the EC nations. As we will see, U.S. firms used the differential rates of intervention and the threat of near chaos in the European steel sector to its clear advantage in 1982 when they filed for protection under the AD and CVD laws.

After the mid-1970s, other countries provided subsidies for new capacity rather than for covering operating losses as in Europe. Governments in the developing world were especially aggressive in adding to new capacity. Notable examples include the efforts in Brazil and in South Korea.[20] Figure 2.2 illustrates how the steel capacity in the developing world grew rapidly in the period. The increase in capacity was especially important during the 1980s but began in the 1970s, both as part of import substitution programs as well as export promotion programs to earn foreign exchange after the oil shock of 1974.

The structural change in steel demand is also evident within the internal U.S. market. In table 2.2 we see that steel use as a percentage of real GDP rose continually until 1974. Subsequently, steel consumption has stabilized at or near 100 million tons per year even while the U.S. economy has continued to grow. This reflects both the growth in the service economy, for which steel is a negligible input, as well as the growing use of substitute materials such as plastics and aluminum.

20. A complete catalog of developing country steel practices is beyond the scope of this paper. The interested reader should see Howell et al. (1988).

The U.S. industry's responded to the post-1974 crisis with renewed pressure for import relief. Steel imports began to rise significantly in 1977, with imports rising to an unprecedented 17.8 percent. Japanese and EC exports were most prominent in this renewed international pressure. Subsequently, a number of U.S. firms began to close plants and others announced large worker layoffs.

The political allies of the integrated sector organized in response to the economic pressure. Most notably, representatives from steel-producing communities formed the Congressional Steel Caucus to press the steel industry's case through legislative action. In essence, the steel caucus acted as a clearinghouse for lobbying efforts by the various fixed factors (labor, producer, and steel-dependent local communities) associated with the integrated steel industry.

Members of the steel caucus drew up legislation calling for strict import quotas. The Carter administration, fearing that executive branch passivity would result in a major trade policy fiasco, urged the industry to file dumping cases under the revised AD rules in the 1974 Trade Act rather than push for a legislated quota (Crandall 1981). The industry followed this advice.

There was every reason to believe that the cases would end affirmatively since the European Community in particular was clearly subsidizing its industry. The Carter administration therefore worked to fashion a compromise that would relieve the political pressure to provide special quotas but would prevent final AD duties. The end result was the inauguration of the TPM. This plan created a minimum U.S. import price based on the production costs of Japanese steel firms (widely recognized as the world's low-cost suppliers) plus a "fair" profit margin of 8 percent. Any steel entering the U.S. market below this minimum price would trigger the self-initiation of an AD petition by the administration. In exchange, U.S. firms agreed to withdraw all AD and CVD petitions and refrain from filing new cases.

The integrated sector agreed to the plan for a number of reasons. One particularly attractive aspect of the plan for the integrated sector was that the TPM applied to all imports. Thus, the TPM discouraged trade diversion to other sources, unlike the 1969 VRA. Second, the industry could avoid further litigation costs of pursuing the AP cases. Finally, the plan explicitly provided import price stability. This in turn limited price competition among domestic rivals and helped maintain a cartellike discipline.

The system provided a number of important benefits to some foreign firms as well. All exporters would be in a much better position to judge what was "acceptable" price competition in the United States. This would help them avoid AD petitions. In addition, the program also guaranteed high-cost European firms significant profits in the United States since the TPM created a price floor based on the lowest-cost producer.

Like the 1969 VRA, the TPM is most notable because the industry was able to obtain a result outside normal U.S. trade law processes. The steel industry, with the strong threat of congressional action and a credible threat of AD pro-

cedures, secured minimum prices for imported steel and helped domestic firms maintain capacity utilization and profit levels higher than under unfettered competition.

2.5 The Quest for Comprehensive Quotas

2.5.1 Tactical Use of the AD Process: 1982 VRA with the European Community

The TPM created some breathing room for the American integrated sector. Overall import market share fell from 21.1 percent in 1978 to 15.5 percent in 1981 and net operating profits reached $1.6 billion in 1981.

Nevertheless, the integrated steel sector in the United States began the 1980s with major long-term economic problems. In 1981, the U.S. steel sector use of outdated OHFs remained at 36.5 percent of its operations. In contrast, Japanese and EC firms used this decades-old process in only 4.1 and 26 percent of their plants, respectively. Use of modern continuous casting techniques followed similar patterns: 20.3 percent in the United States versus 70.7 percent in Japan and 44.9 percent in the European Community (International Iron and Steel Institute 1991).

Labor costs were also an important problem for U.S. firms. Average unit labor costs for U.S. steel firms in 1979 were $162.7 per ton, while Japanese rates averaged around $49.8 and Thyssen of Germany averaged $111.1 per ton (World Steel Dynamics 1990). Labor productivity was also low in the United States (217.3 tons per employee) when compared to Japan (474.2 tons per employee) and South Korea (448.7 tons per employee).

Contributing factors to the high labor costs included outdated physical capital, rigid work rules, and wages that had risen under the Experimental Negotiating Agreement of 1974. This labor arrangement guaranteed a 3 percent nominal increase in pay plus a full cost-of-living adjustment in return for an agreement not to strike. As table 2.5 shows, steel sector nominal labor compensation in 1980 was $17.5 per hour, or nearly double the average manufacturing compensation of $9.9 per hour. Ironically, this labor arrangement, which was an important contributor to decreased international competitiveness through high labor costs, was instituted as a means to cope with import competition. Specifically, steel producers believed that the threat of strikes in the late 1960s and early 1970s had caused steel-using industries to sign contracts with importers to protect themselves from supply disruptions. The industry consequently felt that a labor contract that prevented strikes would limit imports and thus was worth the added labor costs (Williams 1978).

The industry was therefore ill equipped to cope with a major downturn and a renewal of intense international competition. The onset of the deep recession in 1981–82 was thus nearly catastrophic for the U.S. industry. Table 2.6 shows that total steel sector capacity utilization fell from 78 percent in 1981 to 48

Table 2.5 Production Worker Compensation

Year	All Steel Firms			All Manufacturing		
	Nominal Compensation[a]	Real Compensation[b]	Productivity Index[c]	Nominal Compensation[a]	Real Compensation[b]	Productivity Index[c]
1980	17.5	21.2	100.0	9.9	12.1	100.0
1981	19.0	20.9	108.8	10.8	11.9	102.3
1982	22.7	23.5	88.3	11.6	12.0	104.9
1983	21.1	21.2	113.8	12.1	12.1	110.3
1984	20.3	19.5	127.7	12.5	12.0	116.3
1985	21.4	19.9	135.5	13.0	12.0	121.5
1986	22.0	20.0	137.9	13.2	12.1	126.1
1987	22.6	19.9	148.1	13.4	11.8	130.8
1988	23.6	19.9	163.1	13.9	11.7	134.3
1989	23.5	18.9	158.5	14.3	11.5	138.0
1990	24.3	18.6	163.8	14.8	11.3	141.6

Source: USITC, "Annual Survey Concerning Competitive Conditions in the Steel Industry and Industry Efforts to Adjust and Modernize" (Washington, D.C., various years).

[a]Compensation figures (given in dollars per hour) include both direct and indirect payments.

[b]Real compensation based on CPI-U (1982–84 = 100).

[c]Productivity index given as output per hour.

percent in 1982.[21] Even as sales and capacity utilization dropped, average costs rose so that operating profits for all steel firms fell to a loss of $3.4 *billion* in 1982. As table 2.2 shows, total steel sector employment dropped sharply from 391,000 in 1981 to 289,000 in 1982, or nearly 25 percent. Import market share rose from 19.8 percent of the market in 1981 to 21.8 percent in 1982, thereby exceeding 20 percent of the U.S. market for the first time in the twentieth century. However, it is important to note that this overall increase in import share reflected mainly a precipitous drop in domestic consumption since the absolute level of all imports *fell* from 18.9 to 16.6 million tons in the same period.

Despite the overall drop in volume, imports of European steel into the United States did increase substantially. For example, the volume of U.S. imports of EC hot-rolled carbon steel plate, hot-rolled sheet and strip, and cold-rolled sheet and strip rose 20, 25, and 41 percent, respectively from 1980 to 1981 (USITC 1982). The rise in European exports reflected the fact that Europe was also in the midst of a severe recession and, unlike the United States, had continued to add steel capacity through the late 1970s. European firms tried to maintain high capacity utilization to keep costs down. Since the Davignon Plan effectively limited intra-Europe sales, many firms aggressively exported to the United States.

The integrated industry therefore pointed to Europe, and especially the ef-

21. Capacity utilization in Japan and the European Community fell less sharply to 62 and 57 percent, respectively (World Steel Dynamics 1994).

Table 2.6 Profit Rates and Capacity Utilization

	Entire Steel Sector		Integrated Sector		Minimill Sector		All Manufacturing	
Year	Profit Rate[a]	Capacity Utilization	Profit Rate[a]	Capacity Utilization	Profit Rate[a]	Capacity Utilization	Profit Rate[a]	Capacity Utilization
1980	1.8	73	n.a.[b]	87	n.a.[b]	90	7.6	80
1981	3.8	78	n.a.	79	n.a.	78	7.4	79
1982	−12.0	48	n.a.	48	n.a.	50	5.3	73
1983	−9.1	56	n.a.	56	n.a.	57	6.3	75
1984	−0.6	68	n.a.	69	n.a.	67	7.1	80
1985[c]	−1.7	66	−2.9	68	3.1	64	5.9	80
1986	0.2	64	−1.2	64	5.1	65	5.8	79
1987	5.3	80	4.5	84	7.9	74	7.3	81
1988	8.7	89	8.1	96	9.6	79	8.3	84
1989	7.1	85	6.5	90	7.5	76	6.9	84
1990	4.8	85	2.9	88	7.1	80	5.7	82
1991	−0.3[d]	74	−4.6	78	4.2	68	3.6	78

Sources: For steel industry data, USITC, "Annual Survey Concerning Competitive Conditions in the Steel Industry and Industry Efforts to Adjust and Modernize" (Washington, D.C., various years); for integrated and minimill capacity utilization, WEFA Group, "Steel Market Outlook, 4th Quarter 1992" (Philadelphia, 1993); for manufacturing sector data, Council of Economic Advisors, *Economic Indicators* (Washington, D.C.: Government Printing Office, various issues).

[a]Operating profits divided by net sales.

[b]Dissaggregated series for minimill and integrated sectors unavailable prior to 1985.

[c]For 1985 onward, steel industry profits are the average for the last six months of the current year and first six months of the next. This was the reporting method for the ITC annual steel reports (1991–92).

[d]Author estimate.

fects of government subsidies, as the main source of its difficulties. They also argued that the TPM was failing to protect the industry from the effects of these foreign subsidies. The combination of these three factors induced U.S. producers to force the end of the TPM. On January 11, 1982, Bethlehem Steel, U.S. Steel, Republic Steel, Inland Steel, Jones and Laughlin Steel, National Steel, and Cyclops Steel filed 61 CVD and 33 AD duty petitions against eight countries of the European Community, as well as Brazil and Romania.

The cases' sheer complexity nearly brought the administrative process to a halt as the responsible agencies struggled under the statutory deadlines recently introduced in the 1979 trade act. Indeed, many observers thought that the industry's strategy was to overload the AP system and force a negotiated quota.

The cases reached their first important juncture when the ITC ruled affirmatively in 20 of the CVD cases and 18 of the AD petitions. However, these numbers understate the rulings' overall impact since a significant number of the petitions were lost in the CVD process but won as AD cases. The varied outcomes also had important subtle impact. For example, the ITC determined

that imports of hot-rolled plate from France, Italy, and Luxembourg had not caused material injury but ruled affirmatively on plate from Belgium, the United Kingdom, and West Germany. The petitioners alleged that these "guilty" exporters dumped steel by margins of 6.8, 100, and 78.9 percent, respectively. The widely varying allegations reflected in part the variable treatment afforded different European firms by their respective governments. The potential variation among different countries' plate exports meant that EC plate exports might have received radically different treatment when entering into the United States, ranging from no extra duties on French plate exports to 100 percent duties on U.K. exports.

Most observers believed that the DOC was highly likely to make affirmative final decisions on dumping and subsidies. The rapid increase in EC exports, huge domestic financial losses, and massive steelworker layoffs also made an affirmative ITC material injury decision quite probable. This likelihood of affirmative decisions meant that highly divergent duties on EC exports were forthcoming. This created an extraordinarily favorable negotiating position for the domestic industry. A closed U.S. market for a subset of European exporters combined with a barrier-free EC market would have meant massive trade diversion within Europe. Thus, the Europeans faced the real possibility that their steel industry would be thrown into the same chaos that they had so narrowly avoided in 1977 and in 1980 (Tsoukalis and Schwartz 1985). The Europeans had every reason to negotiate with the United States.

The Reagan administration also wanted to avoid the open-ended and prohibitive duties on many European steel exports if the ITC voted affirmatively at the final AP stage. If AD and CVD duties were imposed, the president would lose discretion in steel policy with the European Community, one of the United States' major political and military allies. Complicating matters was a concurrent dispute with the European Community over a natural gas pipeline from the Soviet Union to Western Europe. Reagan administration officials believed that punitive duties on steel exports would make talks over this issue even more problematic and impede cooperation on what the administration saw as a critical security policy issue. These factors induced the administration to enter negotiations with the European Community for a new VRA.

The agreement, finally reached in October 1982, limited EC exports to 5.5 percent of the U.S. market. In return, the U.S. firms dropped their unfair trade petitions and agreed to refrain from filing new cases until the agreement expired in January 1986. The agreement provided benefits that they had originally expected from the TPM. In particular, the VRA both allowed U.S. firms to avoid further AP litigation costs and provided protection against all EC imports rather than only a subgroup, thereby avoiding supply diversion. The industry's disappointment with the details of the TPM administration were solved by the reliance on numerical targets rather than on a bureaucratically administered price-based system.

The U.S. firms' motivation for filing unfair trade remedy petitions rather

than using other options such as the escape clause is quite clear. First, there was no question that some European firms had been subsidized by their governments. Consequently, affirmative dumping and subsidy decisions by the DOC were highly probable. This in turn provided the steel sector with enormous leverage since the dumping and subsidy margins would vary widely among the EC nations. The possibility of highly divergent, and perhaps permanent, AD and CVD duties that varied across countries exploited EC fears about a renewed steel industry collapse within Europe. Second, the lower injury standard under AD and CVD rules meant that the probability of an affirmative decision at the ITC was higher than with an escape clause serious injury determination. This was of major concern to the industry, given the ITC's 1980 negative decision on an automobile escape clause case. Finally, the highly technical and nonpolitical nature of these cases and the lack of a presidential role in AD and CVD processes created a credible threat to secure high duties. This was particularly important since the industry doubted whether President Reagan would impose significant tariffs under the escape clause process.

2.5.2 Comprehensive Quotas at Long Last: 1984

Despite the VRA victory, the respite for the integrated industry was short lived. The noncomprehensive nature of the agreement led quickly to supply diversion, so that other imports rapidly filled the void created by the fall in EC exports. Imports from all sources rose slightly from 16.6 million tons in 1982 to 17.1 million in 1983.

The domestic firms' position was weakened not only by supply diversion. As figure 2.3 shows, the steel sector was strongly affected by the start of the dollar's spectacular rise in value. This reduced sharply the landed price of foreign steel into the United States and helped cause import volume to rise by almost 52 percent from 1983 to 1984.

Integrated firms, severely disappointed by an import share still exceeding 20 percent despite the VRA, began once again to prepare trade cases. Two efforts were initiated. One, spearheaded by U.S. Steel, resulted in dozens of new AD and CVD cases involving non-EC countries. The second strategy was initiated in January 1984 when Bethlehem Steel and the USW filed an escape clause petition on behalf of the entire carbon (and alloy) steel industry. Both efforts seemed to have a negotiated global VRA as an objective, but the tactics to reach that goal were quite different.

U.S. Steel and its allies wanted to pursue a strategy similar to the one utilized against European imports in 1982. They believed that the case for unfair foreign practices was so clear that very high and potentially open-ended duties could be placed on foreign exporters. In addition, many of the exporting nations named in the new round of petitions were developing countries in which steel sector government intervention was even more extensive than in Europe. A further advantage of the AD and CVD processes from the steel industry's perspective was the continued exclusion of President Reagan from any role.

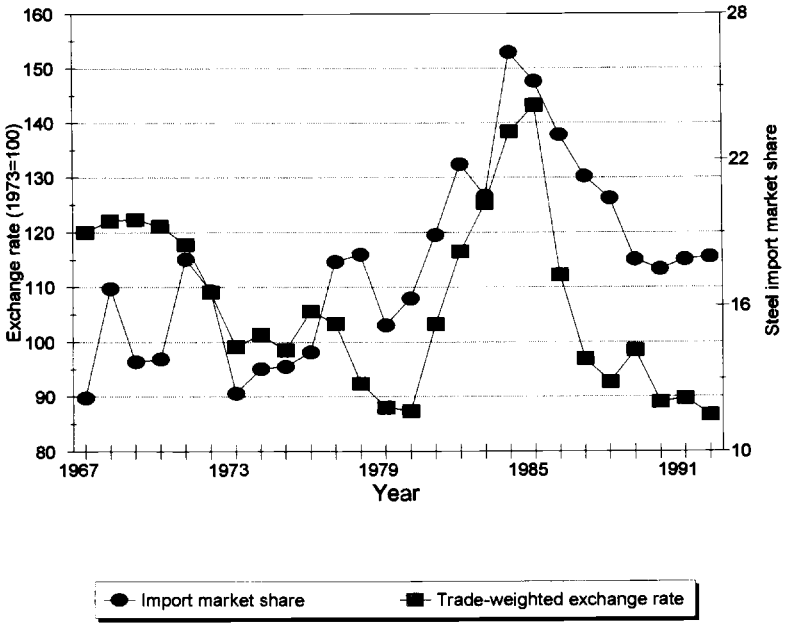

Fig. 2.3 Steel import market share and trade-weighted exchange rate
Sources: AISI (various issues); Federal Reserve Board.

Bethlehem and the USW, on the other hand, had come to believe that unfair trade remedies, used or threatened by the industry for over 10 years, had yielded at best only partial protection. Consequently, this alliance of an integrated firm and steelworker union opted to push finally for a comprehensive import barrier program, but one that might last for only five years under the escape clause mechanism.

The first important hurdle in the escape clause case was to win an affirmative decision at the ITC. The two most critical issues at the ITC was the definition of the "domestic industry" and whether imports were a substantial cause of serious injury. If the ITC's ruling was affirmative, the decision would then be on President Reagan's desk in September 1984, less than two months before the presidential election.

Even as the ITC considered this escape clause petition, the integrated firms, the USW, and their congressional allies proposed legislation imposing an across-the-board 15 percent quota on imported steel, an import share last seen in 1976. A revised bill also included a provision requiring the industry to reinvest all net cash flow from steel operations back into the steel industry. This was a direct concession to the USW since union leaders feared that protection-induced profits would be used to diversify out of steel as U.S. Steel had with the purchase of Marathon Oil.

The title of the quota bill, The Fair Trade in Steel Act of 1984, attests to the importance of trying to reach the rhetorical high ground. The focus, proponents of H.R. 5081 insisted, was not protection but redress of legitimate grievances against foreigners. For example, Representative John Murtha (D-Pa.) said that there may be room for argument about "academic assertions" that the industry had offered overgenerous labor contracts and had modernized slowly but "there is absolutely no room for argument regarding the predatory pricing and trade practices being implemented by foreign steel producers in their zeal to acquire the commanding share of the domestic steel market in the world's largest free market—the United States" (U.S. Congress, House 1984, 7).

Congressional skeptics of the legislative effort insisted that the industry should use the extant trade remedy apparatus rather than obtain a special quota. Sam Gibbons (D-Fla.) also noted that factors other than unfair foreign competition were at the heart of the integrated sector's problems: "Imports of steel for 1974 were about 16 million tons and imports in 1983 were still only about 17 million tons. . . . What has happened is that, one, the domestic steel market has shrunk as less steel is being used and, two, minimills have entered the market" (U.S. Congress, House 1984, 51).

Representatives of the steelworkers, steel producers, and steel-based communities were highly visible in the legislative hearings. Not surprisingly, all argued strongly in favor of the quota bill. Much of the focus was on foreign subsidies, global overcapacity, and the wrenching effects on steel communities as the industry restructured.[22]

Opposition to the bill came mainly from administration representatives (including Commerce Secretary Malcom Baldrige and Special Trade Representative William Brock), academic opponents, and a number of representatives of steel importers. Some important industrial consumers of steel did testify against the quota bill, including officials from Caterpillar, Inc. However, domestic steel-using industries apparently were prepared to do little more than offer token testimony in opposition; according to both steel-user and steel industry representatives, extensive outside lobbying activity by users was extremely limited. In private conversations, a user-industry representative acknowledged that the massive steel sector employment losses, combined with the foreign subsidies, created little room for effective opposition to steel protection.

Perhaps the most fascinating congressional testimony offered in opposition to the import restrictions came from Kenneth Iverson, CEO of Nucor Corporation, the most successful minimill firm in the United States.[23] Iverson spoke

22. See, e.g., testimony by John Sheehan of the USW, David Roderick of U.S. Steel, and Mayor Richard Caliguiri of Pittsburgh, a leader of Local Officials for Fair Trade (U.S. Congress, House 1984).

23. Other minimill firms were more sympathetic to the quota legislation. See, e.g., the testimony by James Collins, president of the Steel Manufacturers Association (SMA), a minimill trade group (U.S. Congress, House 1989).

out strongly against any trade protection and asserted that "we believe that tariff or nontariff trade barriers will delay modernization of our steel industry, [and] will cost the consumer billions of dollars." He argued that the government could instead offer assistance in retraining programs and various special tax credits directed specifically at the integrated sector (U.S. Congress, House 1984, 288–89).

In July, the ITC rendered its decision on the escape clause petition. The commission ruled that only five of the nine constituent steel "industries" were eligible for import relief. To relieve the injury, the ITC recommended that the president impose a combination of tariffs and quotas on imports for the seriously injured industries producing steel sheet and strip, plate, structural shapes, wire and wire products, and semifinished steel. The protection would be phased out over the next five years. The ITC, however, found that the industries producing pipe and tube, bar, rod, and rails were injured for other reasons more important than import competition.

The ITC's decision was a mixed outcome for the industry and reflected the rising importance of the minimills in the United States. In particular, the commissioners argued that intraindustry competition (i.e., domestic minimills) was a more important source of injury than foreign competition for the four product categories denied relief. Indeed, the ITC pointed out that minimills had consistently undersold both imported and integrated mills and had still remained profitable for the previous three years (USITC 1984, 47–54).

President Reagan once again was faced with a dilemma over steel trade policy. The law required the president to accept, reject, or modify the ITC's recommendations by September 1984. If he followed the ITC plan and provided protection for only the five ITC-approved petitions, the steel industry was likely to press forward with the other unfair trade petitions. Accepting the ITC's escape clause suggestions would also mean foreigners could retaliate against U.S. exports if compensation was not forthcoming. If the president rejected import relief altogether, the industry still could rely on AD and CVD cases in which the president played no role whatsoever. Total rejection of relief might also lead to passage of the quota legislation which Reagan would be forced to veto right before the election.

There was intense disagreement among administration advisers about the proper action. Some counseled that Reagan should hold fast to his free trade principles. Others, especially political advisers, counseled that some action was necessary since rejection of all relief would lead to potentially significant consequences in the 1984 elections.[24]

In the end, the Reagan administration formally rejected the ITC recommendations but announced simultaneously a program to deal with steel imports. The heart of the plan, scheduled to expire in 1989, was a comprehensive steel

24. See Niskanen (1988) and Walters (1988) for further discussion about these intra-administration disagreements.

quota encompassing *all* of the industries in the section 201 petition, *including* the four products for which the ITC had recommended no relief. The VRA would apply to countries "whose exports to the United States had increased significantly in the previous years" (49 *Federal Register* 36813). This would include all major suppliers to the United States, including the European Community, Brazil, South Korea, Japan, and others. (See table 2.8 for a list of included exporters.)

The VRA was designed to limit imported finished steel products from the covered countries to 18.4 percent of the domestic market (adjusted annually) and a specific quota of 1.7 million tons for semifinished steel. A critical new aspect of the program was that the administration agreed to administer the quota on a product- and country-specific basis. This would help alleviate product upgrading and supply diversion, both of which had been major industry complaints with the 1969 VRA with the European Community and Japan and the 1982 VRA with the European Community. Finally, the program incorporated an aspect of the congressional quota bill that required the domestic industry to reinvest all net cash flow from their steel operations back into their steel plants.

The 1984 VRA program was a major political victory for the integrated sector. The industry secured its most important long-term trade goal, namely, a comprehensive quota covering nearly all products and all exporting countries. The industry certainly would have preferred the 15 percent quota embodied in the legislation, but it did obtain an import share in line with that of the late 1970s. The USW also could claim an important triumph since the industry was *required* to reinvest steel sector profits back into steel operations and provide some funds for worker retraining.

The integrated industry was able to win this victory through brilliant use of the multiple paths of protection in the United States. The industry simultaneously pursued legislative action, relief under the escape clause, and the imposition of AD and CVD duties. The threat of the AD and CVD duties was perhaps most significant since they confronted the administration with the reemergence of near-prohibitive duties that could be imposed without any executive branch input.

The timing of the lobbying effort also served to maximize political pressure on the Reagan administration in an election year. The escape clause petition in particular was structured so that the president would have to reach a decision only eight weeks before the election.[25] If the 1984 presidential election had proved to be a close one, the electoral votes of major steel-producing states such as Pennsylvania and Ohio could have been decisive.

The program was clearly an unusually protectionist regime. Not only did the administration approve a comprehensive protection scheme for the steel

25. Representatives from both the USW and a major steel firm both deny, however, that presidential election considerations played any role in the timing of the escape clause petition.

industry, it did so by negotiating VRAs rather than imposing a tariff under the escape clause. Most economists consider such quantitative restrictions clearly inferior to the imposition of tariffs since they transfer potential tariff revenue to foreign exporters in terms of quota rents.[26] Second, the administration offered protection far beyond what was required under U.S. trade law since four of the products included in the VRA program were ruled ineligible for relief by the ITC. The administration also instituted a managed trade program since specific numerical targets were included for countries and products. Finally, the mandated reinvestment of net cash flow back into steel operations contrasted starkly with the administration's general predilection to allow markets to determine capital allocation.

Why did the "free market" Reagan administration offer such sweeping and broad-based protection? This acquiescence to steel industry and steel union demands clearly was not a result of an ideological predisposition for protection and intervention. The answer must be that the steel industry had enough political clout to force an outcome acceptable to them.[27]

Nonetheless, the VRA program provided distinct political advantages for the administration over other possible outcomes. President Reagan could assert that, as with the automobile agreement with Japan, he was not imposing tariffs but negotiating an agreement. This would allow him to score political points with steel sector voters while retaining his free trade rhetoric. A negotiated agreement also insured that the administration would retain some control over steel trade policy decisions. This was particularly important given the sensitive nature of steel issues within the European Community. Such discretion would have been impossible if final AD and CVD duties had been imposed. The use of a VRA also enabled the administration to control the timing of protection offered the steel industry. Unlike AD and CVD measures, which have no precise expiration date, the VRA expired in October 1989, fully 11 months *after* the 1988 presidential election. This would help limit the ability of the steel industry to reinject steel trade policy into presidential politics.

In summary, the 1984 VRA demonstrated the significant political power of the U.S. integrated steel industry.[28] Industry producers, union leaders, and congressional representatives of steel-producing communities worked hand in hand to secure a highly interventionist trade policy outcome from the Reagan

26. Moore and Suranovic (1993) have shown that VRAs may welfare-dominate tariffs when GATT-consistent compensatory tariff reductions or retaliation are included.

27. It is also interesting to note that the copper industry, a less politically powerful industry, also won an escape clause case at the ITC at about the same time. President Reagan refused to provide protection in this case.

28. Another example of steel industry clout was the appointment of Eugene Frank to the ITC in 1981. Frank was strongly backed for the position by Pennsylvania Senator John Heinz and had long and close ties with the steel industry. Prior to his appointment, he organized regional Committees for Fair Trade. Frank's nomination was strongly opposed by foreign steel producers who asserted that he was "clearly biased" (*Wall Street Journal*, July 15, 1981). Commissioner Frank has had the most protectionist voting record in commission history and voted affirmatively in all material injury decisions on which he cast a vote.

administration. They pursued a multifaceted approach that exploited the highly cohesive nature of the steel industry coalition, the lack of organized opposition by steel-using industries, and the AP procedures available to them. Subsequent steel policy outcomes in the 1980s and early 1990s would not be nearly as favorable to Big Steel.

2.5.3 The VRA Renewal Campaign: 1989

Economic Performance of the Steel Industry: 1984–88

The economic condition of the U.S. steel industry improved dramatically after the introduction of the global VRAs in October 1984. Table 2.6 shows that capacity utilization for the domestic industry rose from 68 percent in 1984 to 89 percent in 1988. Operating profits increased from a *loss* of $186 million in 1984 to a gain of over $3.5 billion in 1988. Not only did the steel industry's performance improve relative to its own position in 1984, it also performed better relative to the U.S. manufacturing sector as a whole. Specifically, in 1988 steel sector capacity utilization and profit rates finally exceeded the overall manufacturing average. This represented a dramatic improvement over the disastrous performance of the early 1980s.

A number of factors contributed to this improvement in economic performance. The reduction in import competition was one factor. Total imports from all sources fell from a historic high of 26.4 percent (26 million tons) in 1984 to only 20.4 percent (21 million tons) in 1988. However, the VRA program was not the sole contributor to the reduced imports. Most important, the U.S. industry's international competitiveness greatly improved, some of which was a consequence of integrated sector restructuring and other purely exogenous factors.

Perhaps the most important source of improvement was the moderation of labor costs during this period. The USW, for example, offered concessions in labor negotiations totaling $4.5 billion as well as flexibility on work rules (Williams 1988). As table 2.5 shows, these efforts resulted in important gains in unit labor costs. Productivity rose by 27.5 percent from 1984 to 1988, while real steelworker compensation rose by only 2 percent. In contrast, productivity for the entire U.S. manufacturing rose about 21 percent, while real compensation wages actually fell by approximately 2 percent. Thus, labor costs corrected for productivity seemed to moderate in the steel sector, in contrast to the steelworkers' poor productivity growth and guaranteed wage increases in the 1970s.

The integrated producers also continued their intensive rationalization and modernization efforts. Rationalization efforts included U.S. Steel's abandonment of five integrated plants and National Steel's sale of its Weirton, West Virginia, plant to its employees in 1984 (Hogan 1987). Technological backwardness vis-à-vis foreign producers lessened as modernization expanded the use of continuous casting in the United States from 39.6 percent of production

in 1984 to 61.3 percent in 1988. The use of outdated OHFs also fell from 9 percent to just over 5 percent over the same period. However, the use of BOFs remained essentially unchanged over the period and reflected a continuing need for modernization (International Iron and Steel Institute 1991).

Perhaps the most important exogenous factors were the substantial weakening of the dollar after 1985 and strong worldwide economic growth. Figure 2.3 shows that after the dollar's depreciation in 1985, steel import market share fell substantially in the United States. Steel consumption patterns also contributed to a reduction of exports to the United States. In particular, while U.S. consumption remained essentially unchanged from 1984 to 1988, steel demand rose by 37 percent in the European Community, 16.2 percent in Japan, and 20 percent in the developing world (International Iron and Steel Institute 1991). Thus, exchange rate changes and strong price pressures abroad both created powerful incentives for foreign steel firms to exploit non-U.S. markets.

Another critical aspect of the improved overall economic statistics of the U.S. steel industry was the continued strong performance of domestic minimills. As table 2.6 indicates, minimills' capacity utilization and profits were consistently higher than the integrated sector. Since the market share of minimills was growing throughout the 1980s, the minimills' economic experience helped bring up the average performance of the sector. Persisting minimill pressure also contributed to continuing competitive pressures on the integrated mills, even if import pressures had subsided somewhat.

All of these indicators of improved economic performance became important factors as decisions about renewal of the VRA program approached in 1988.

Steel Policy and Presidential Politics in 1988: Déjà Vu All Over Again

One of the supposed key political advantages to the VRA program announced in 1984 was that it would extend beyond the next presidential campaign into 1989. This, the Reagan administration hoped, would prevent the steel industry from using the presidential election to affect steel trade policy. Indeed, as the presidential campaign wore on, it appeared that steel import policy would play only a minor role in the election. Governor Michael Dukakis, the Democratic party nominee, did come out in favor of a VRA renewal but never made it an important part of his election campaign.

However, in the late summer and early fall, Republican presidential candidate George Bush was significantly behind in the polls. As part of the general effort to coordinate a come-from-behind victory and to help solidify political support among blue-collar workers in the steel region, the Bush campaign agreed to support a VRA extension. Industry and campaign representatives negotiated for some time in the early fall to have Bush appear at a steel facility where he would announce support for an extension. Though this appearance never materialized, the Republican campaign arranged instead for the vice president to outline his support for a continued special steel program in a letter

to Senator John Heinz, a Republican from Pennsylvania and an ardent supporter of the steel industry in particular and of aggressive U.S. trade policy in general.

In the letter dated November 4, 1988, Bush stated that "one of the significant successes of the Reagan Administration has been the President's Steel Program. . . . A comprehensive VRA program has proven to be more effective in offsetting unfair trade practices than trying to counter these practices on a case-by-case basis. . . . One of the key trade policy goals of a Bush Administration will be to achieve an international consensus on eliminating [dumping and subsidizing of steel], and, pending that, I can assure you of my intention to continue the voluntary restraint program after September 30, 1989." The vice-president, however, did not outline any specifics about the timing and details of his proposed program.

This letter, written just as George Bush was about to win an overwhelming election victory, reflected the steel industry's continued image as a powerful political presence. However, the industry's inability to nail down specific promises about the nature of the VRA extension was to haunt it later in 1989.

Soon after inauguration, posturing began over the extension's exact details. In previous public discussions, integrated steel producers and their allies dominated the field. In essence, these early steel trade arguments revolved only around the benefits of steel protection and the presence of foreign government intervention. Little regard for the effects on domestic steel consumers was evident in decisions. This was to change in a profound way during this period. Most important, steel-user interests were to play a much more prominent role in the public discussions and in the final outline of the policies.

Big Steel versus CASUM

One of the first public indications of the increased importance of the VRA's user effects appeared in February 1989. The House Ways and Means Trade Subcommittee requested that the ITC conduct an investigation into the costs of the VRAs to steel-*using* industries. The ITC was instructed to consider the VRA's effects on the exports, imports, and prices of steel-using industries and to poll these industries concerning their positions on the VRA's renewal.

In the report, the commission estimated that the VRAs had increased the weighted average of domestic and imported steel prices by 0.6 percent in 1985 and 1.6 percent in 1986. The estimates of price increase rose to 1.4 percent in 1987 and fell to 0.2 percent in 1988. The commission also calculated that the steel restraints reduced U.S. exports of steel-using industries by over $1.7 billion dollars in 1985–88. The ITC study also noted that strong demand for certain types of steel and the weakened dollar were important causes of separate upward pressure on prices (USITC 1989b).

This report is a highly unusual document. The views and interests of *protection seekers* are totally absent since the report was commissioned as a purely investigative study and not part of an AD, CVD, or escape clause petition. The

focus, therefore, was on the costs rather than the benefits of protection. The commissioning of this report, however, was only a hint of how user interests were to play a near-dominating role in the 1989 VRA extension debate.

As 1989 wore on, the usual array of actors lined up in favor of the VRA extension (see table 2.7). Steel-producing community representatives in the bipartisan Congressional Steel Caucus, the integrated firms' trade association (AISI), and the steelworkers' union (USW) reassembled the coalition that had been so successful five years earlier. The SMA, the minimill trade association, also strongly supported the extension in congressional testimony, but the major players continued to be members of the integrated steel sector. The main goals of the steel industry and its allies were to push for a five-year extension of the existing program, but with the inclusion of nonparticipating nations (Canada and Sweden) into the extended VRA.

The proponents of a continuation and enlargement of the program argued that the improved economic performance of the industry noted above was "proof" that the VRA had been the most successful steel trade policy program in U.S. history. The industry, they argued, was now competitive but still needed five more years to complete the modernization program. Without a full five-year extension, modernization plans might be disrupted. Allegheny-Ludlum, for example, asserted that a $5 billion dollar expansion would be abandoned if the VRA were not extended. They also used the results of ITC steel-user

Table 2.7 **Policy Positions and Economic Stakes on 1989 VRA Extension**

Economic Consequences of VRA Extension	Policy Position		
	Support	Neutral	Oppose
Benefited	AISI (association of integrated producers) USW (steelworker union) SMA (association of minimill producers)		Nucor Corp. (minimill producer)
Unaffected	Congressional Steel Caucus (Congress members from steel-producing districts and states)		
Hurt	Coalition for a Competitive America: Steel Users for VRAs (steel-user group organized by AISI) Chrysler Corp. (steel-using automobile producer)	General Motors Ford Motor Co.	CASUM (steel-user group) Caterpillar, Inc. (heavy equipment manufacturer and exporter) PMA (small businesses processing steel for intermediate input use)

Sources: Policy position based on testimony before Congress (U.S. Congress, House 1989). Positions of other individual steel-user industries can be found in USITC (1989b).

investigation to argue that price increases due to the VRAs had been small, especially compared to the effects of the depreciating dollar. The industry also asserted that VRAs were the only "viable trade policy in view of the continuing lack of access to foreign markets, unfair trading practices of foreign countries and structural world overcapacity in steelmaking" (AISI 1989, 1). The industry also argued that if the VRA were not extended, they would be forced to rely on AD and CVD petitions. In appearance after appearance, the industry raised the specter that these unfair trade remedies would be even more disruptive than a VRA since the margins would be very high and vary greatly across countries and products (AISI 1989, 17).

While these arguments may have had a familiar ring, the actions of steel-user groups in this period were radically different from earlier steel trade debates. Most important, a lobbying coalition of users successfully overcame transaction and organizational costs to mount a campaign against the renewal. This ad hoc lobbying organization, CASUM, was headed by Caterpillar, Inc., a manufacturer of earth-moving equipment and a major U.S. steel-using exporter, and the Precision Metalforming Association (PMA), a trade association of small businesses that process raw steel for industrial manufacturers, especially for the automobile industry.

CASUM's position was that the president should terminate the VRA program. Their highly public campaign focused on four major points. The first was that steel-using firms provided much more employment than steel-producing firms. Furthermore, they argued that the VRAs harmed U.S. export competitiveness of manufactured goods since they were important steel users. Foreign competitors, CASUM insisted, had access to lower world prices of steel and consequently could charge lower prices than U.S. exporters.

The second argument was that the steel quotas had increased prices and led to spot shortages, especially for firms using modern inventory management techniques ("just in time" delivery). The spot shortages were exacerbated by the "short supply" provisions under which quotas were supposed to be relaxed if a domestic firm could show that a particular steel product was unavailable domestically. In addition, the steel *user* bore the burden of proof in showing that such conditions existed. Other complaints by CASUM included a provision that limited the amount of short-supply steel that could be granted a specific country and a nontransparent application process that could take many weeks.

Third, CASUM argued that the steel industry should rely, like virtually all other domestic industries, on the established AP procedures to address its trade complaints. If unfair competition was occurring, then AD and CVD petitions should be adjudicated to their final conclusions.

Finally, CASUM pointed to the high profits in 1988 and improving domestic steel industry competitiveness as evidence that the domestic industry did not deserve special help.

The overall strategy of CASUM was to turn the debate away from the actions

of foreign firms and governments and away from an argument about free trade versus protection. Instead, CASUM tried to direct the discussion toward the VRA's effects on U.S. manufacturing interests, especially exporters and small businesses. This was a highly effective tactic since both have broad political support. CASUM also appealed indirectly to protectionist elements in Congress by emphasizing that VRAs rewarded unfair traders through the transfer of quota rents. In conjunction with this strategy of stressing how the VRA hurt U.S. domestic manufacturing interests, CASUM steadfastly refused any cooperation from foreign steel companies and U.S. steel importers, the traditional major opponents of steel import barriers. The coalition also made a concerted effort to identify steel-using firms in the districts of Congress members who had supported the steel industry in the past. This helped provide constituent counterbalance to the votes of the steel-producing industry.

CASUM's efforts caught the pro-VRA coalition almost totally off guard. In response, steel industry lobbyists hurriedly organized a user-industry group (named Coalition for a Competitive America: Steel Users for VRAs) as a counterweight to CASUM. The most prominent large steel user in this group was Chrysler Corporation, an automobile company and a major steel user. This position reflects the trade activist philosophy of Lee Iaccoca, a frequent critic of liberal U.S. trade policy. However, although Chrysler did lend its name to the effort, its public participation was limited. For example, Chrysler representatives did not appear before congressional committees in favor of the VRA extension.

Another indication of integrated steel firms' concerns about CASUM was an AISI-published refutation (*VRAs and the Steel Consumer*) of an earlier Caterpillar position paper on the effects of the VRA. The AISI strongly rejected Caterpillar's claims that the VRAs had hurt U.S. export competitiveness or that the steel industry had gained sufficient strength to prosper without special relief. The USW also argued forcefully against CASUM, both in press releases and in testimony before Congress.

The most important aspect of the fight between CASUM and VRA supporters was that Big Steel was forced to enter into a domestic debate with other U.S. industries about the domestic costs of the program. This radically changed the nature of the debate since it removed the discussion from simply making a case about unfair foreign practices and the social costs of massive steel employee layoffs. In addition, the fact that a major U.S. exporting firm (Caterpillar) was complaining of the VRA's effects helped sway opinions among politicians who view imports as "bad" because they destroy jobs and view exports as "good" because they create jobs.

The VRA Extension and Its Aftermath

In the final analysis, the VRA was continued as candidate George Bush had promised. The new program, entitled the Steel Trade Liberalization Program,

granted a two-and-a-half year extension but at the same time set a final and permanent expiration date. After the expiration date, the steel industry would be required to rely on normal trade remedy procedures for any import restrictions. The administration also promised to begin multilateral steel trade negotiations aimed at eliminating the underlying reasons for trade frictions, most importantly foreign subsidies and worldwide steel overcapacity.

The program was a far cry from that requested by the integrated industry. Perhaps the most disappointing provision was the two-and-a-half rather than five-year extension. The Bush administration also allowed for a 1 percent *increase* per year in the quota for countries willing to begin eliminating trade-distorting steel sector practices. The short-supply provisions for products unavailable in the United States, a major sore point for CASUM members, were also substantially liberalized. The program instituted a fast-track 15-day procedure for obtaining steel under short supply when the product was either not produced domestically or when domestic capacity utilization for that product exceeded 90 percent. In addition, the burden of proof in this application process shifted to domestic steel producers, away from steel consumers. These changes reduced the ability of domestic steel suppliers to raise prices in the face of tight supplies on subcategories of steel. Finally, President Bush added no new countries to the VRA program as requested by the steel industry.

In short, the 1989 VRA extension was a major disappointment for the integrated industry and a major victory for the steel-using industries. This is evident from the press reports at the time. The *Far Eastern Economic Review* (August 10, 1989), for example, observed that the outcome "is a demonstration of the new lobbying power of the steel users, especially Caterpillar." *Iron Age* (September 1989, 62), the most important steel trade magazine in the United States, reported that Milton Deaner, president of the AISI, viewed the Bush plan as naive and left the industry too vulnerable to unfair trade practices. The magazine also noted that Caterpillar was elated by its prospects under that the new VRA.

If the VRA extension was so disappointing to the integrated sector, why did the steel firms and USW not reject the VRA extension and pursue AD and CVD cases as they had in previous years? Most important, the industry would have had a difficult time winning an AD or CVD petition. Even if the industry could have showed that dumping and subsidization were taking place, proving material injury would have been highly uncertain given the industry's healthy financial position. Thus, a less-than-ideal VRA was more appealing than undertaking the major expense of a massive and likely unsuccessful AD and CVD campaign.

The disappointing results of the 1989 extension may have been an unexpected consequence of the industry's acceptance of VRAs in 1984. In the purely technical AP process, DOC and ITC administrators cannot consider user effects. The industry consequently would have probably secured affirma-

tive material injury decisions in 1982 and 1984 and received definitive duties. Instead, steel producers agreed to the VRAs in order to obtain comprehensive protection. As it turned out, the ultimate problem with this strategy was that it allowed the user groups to reenter the policy debate when the VRAs were up for renewal. This was complicated by the fact that the industry's fragmentation and improved economic performance undercut its political position in favor of import protection.

It is, however, unclear exactly *why* the Bush administration proposed a steel program so unfavorable to the steel industry. It is possible that the greatly improved economic performance of the industry in 1988 convinced the administration that a highly restrictive VRA was unnecessary. It is also possible that the lobbying campaign by CASUM, nearly unprecedented in U.S. trade policy history, swayed opinions in the White House and on Capitol Hill. CASUM's campaign more likely simply provided political cover for the administration to follow its free trade instincts. In any case, the administration was sufficiently unafraid of the political clout of the integrated steel sector to propose and implement a trade policy highly unsatisfactory to Big Steel.

An intriguing aspect of the 1989 VRA extension was the timing of its final expiration. President Bush's two-and-a-half year extension meant that the program would expire about eight months before the 1992 presidential election. Some participants recall that this date was simply "splitting the difference" between the five years requested by the industry and an immediate termination. Regardless of the motivation, this timetable meant that the integrated steel sector would have a chance to use its leverage in a presidential campaign in 1992 just as it had in 1984.

The actual experience of the VRA in the post-1989 period strongly suggests that, not only was the program less than what the integrated firms wanted, the quotas may have had very little effect at all on the domestic steel market. In particular, the quotas were not filled on a country or product basis for most of the post-1987 period.

Table 2.8 shows that the quotas were binding or nearly binding for most of the first two years. However, beginning in 1988, the overall quota fill rate fell from 79 percent to a low of 54 percent in the last three months of the VRA in 1992. In addition, subsequent to the extension in October 1989, no country filled its overall quota, and in only one instance (Finland in the October–December 1990 period) did imports reach over 90 percent of the quota limits. This pattern is also repeated for individual product categories. Table 2.9 shows that after 1988, the quotas were binding or near binding only in some specialty products—alloy tool steel, tin plate, and stainless steel plate and sheet.

The nonbinding quotas suggest that the integrated industry achieved very little in the way of protection in the 1989 VRA extension. The industry may have enjoyed some benefits through an upper bound on foreign competition; this may have helped investor confidence in integrated firms and eased some

Table 2.8 **Percentage of VRA Filled (by country)**

Country	10/84–12/85	1986	1987	1988	1/89–9/89	10/89–12/90	1/91–3/92
Australia	95	97	94	95	84	85	81
Austria	n.a.	101	77	54	44	64	46
Brazil	97	96	105	92	85	87	59
Czechoslovakia	100	88	99	75	62	38	45
East Germany	99	99	95	88	47	39	14
EC (12)[a]	101	102	96	83	68	75	60
Finland	99	103	97	85	68	94	75
Hungary	46	68	98	98	93	77	25
Japan	108	95	88	72	63	69	56
South Korea	103	103	99	77	59	72	42
Mexico	77	98	87	82	65	64	37
China	n.a.	n.a.	92	90	75	83	53
Poland	111	86	100	94	87	54	41
Romania	101	96	91	82	61	60	28
Trinidad and Tobago	n.a.	n.a.	123	88	92	59	64
Venezuela	90	89	94	65	87	68	40
Yugoslavia	134	89	108	69	41	68	49
Total	102	99	94	79	67	73	54

Sources: USITC (various issues); U.S. Department of Commerce, Office of Agreements Compliance.

[a]Includes Spain and Portugal, both of which were not part of the original VRA agreement.

financing efforts, but it is highly unlikely that the industry effectively limited import competition during this period.[29]

The domestic industry continued to evolve after the VRA extension. In particular, minimills recommenced their strong surge forward vis-à-vis domestic integrated firms *and* imports. A measure of strong minimill international competitiveness is that quotas on traditional minimill long products were filled at an even lower rate than other VRA categories. Table 2.9 shows that in the final period of the VRA, imports of bars, wire products, and structurals reached only 38, 68, and 23 percent of allowable imports, respectively. But perhaps the strongest indicator of future minimill strength was the already-mentioned inauguration by Nucor of its Crawfordsville sheet mill, which began production of flat-rolled products using horizontal thin-slab casting techniques in 1989.

The other major aspect of the Bush administration's steel policy was the multilateral steel negotiations, conducted parallel to the VRA program. The Bush administration hoped that a MSA would eliminate the underlying problems that had bedeviled steel trade for 20 years, especially global overcapacity,

29. However, Helpman and Krugman (1989) have argued that there is a theoretical possibility that nonbinding quotas can lead to price increases in an imperfectly competitive market.

Table 2.9 Percentage of VRA Filled (by product)

Product	1986	1987	1988	1/89–9/89	10/89–12/90[a]	1/91–3/92[b]
Flat-rolled	107	95	81	71	81	68
Plate	105	100	89	72	80	62
Semifinished	95	100	87	77	51	71
Alloy tool steel	105	91	96	95	86	76
Stainless bar and rod	87	89	92	78	83	79
Other stainless and specialty products	82	94	81	94	72	62
Oil country tubular goods	86	86	70	63	92	88
Other pipe and tubes	111	99	86	58	82	62
Wire rod and wire products	95	87	81	73	68	68
Bars	82	79	79	52	55	38
Structurals	92	92	88	55	41	23
Other steel products	72	78	62	56	33	49
Flat-rolled (disaggregated)						
Hot-rolled sheet and strip	104	96	82	72	94	84
Cold-rolled sheet and strip	101	93	77	71	86	78
Blackplate	102	112	93	61	82	58
Electrical sheet and strip	113	96	97	94	93	97
Stainless plate	98	93	86	100	100	97
Stainless sheet and strip	98	94	93	98	90	84
Tin plate	107	96	96	97	96	78
Tin-free steel	104	96	93	98	94	68
Electrogalvanized	102	99	80	37	68	48

Source: U.S. Department of Commerce, Office of Import Compliance.

Note: Product-level data prior to 1986 is no longer available from DOC.

[a]Excludes Australia, Brazil, China, Finland, Mexico, Trinidad, and Venezuela. DOC data is no longer available.

[b]Excludes Trinidad and Tobago. DOC data is no longer available.

tariff and nontariff barriers, and trade-distorting practices such as dumping and subsidies. The entire industry, including the USW, the AISI, and the SMA, strongly supported this effort. Indeed, a multilateral solution to steel problems had long been the principal long-term public policy goal of all members of the domestic steel industry.

The major stumbling blocks of the MSA centered on familiar issues—foreign steel subsidies and U.S. AD and CVD procedures. The U.S. integrated industry's position was known as "MSA plus." The industry wanted an outright ban on *all* subsidies to steel firms, including those for research and development, environmental technologies, and regional development subsidies. The industry also insisted that any agreement not affect U.S. steel firms' or the USW's access to AD and CVD procedures.

As the April 1992 demise of the VRA program approached, the interested actors in the steel industry developed positions about what policy should be adopted afterward. The Bush administration held fast to the position that all quantitative restrictions *permanently* end on April 1. Surprisingly little support

emerged in the steel industry for another extension of the VRA program. Only the USW, Bethlehem Steel, and the specialty steel sector publicly supported an extension. The balance of the integrated industry, extremely disappointed with its experience with the VRA after 1988, expressed no public interest whatsoever in an extension.[30] Instead, these steel firms announced repeatedly that they would file another round of AD and CVD petitions, but this time they vowed to pursue them to final decisions. The industry, in other words, threatened that it would try to obtain the definitive AD and CVD duties that would provide significant and lasting protection.

The decision of the industry to forgo any public lobbying for a VRA is probably the best indicator of the diminished clout of the steel industry. As mentioned earlier, a politically strong industry is more likely to pursue an escape clause or a VRA. Both avenues are characterized by considerable presidential discretion so that political muscle can be brought to bear on the final decision. A politically weak industry, on the other hand, is more likely to exploit the "technical" track to protection and will use the AD and CVD processes in which political clout is almost entirely irrelevant.

The steel users also were largely absent from the discussions at this stage. This reflects two factors. The coalition brought together in 1989 to form CASUM was inherently unstable. The interests of the members intersected essentially only on steel import policy. The group had no reason to continue extensive cooperation on other public policy issues once a steel policy was in place in 1989. In addition, a major argument of CASUM was that the steel industry should not lobby for VRAs but instead use the normal trade remedy apparatus. If the industry was intent on filing AD and CVD cases, Caterpillar and other CASUM members could not credibly complain.

In the event, the VRA program expired on April 1, 1992, and the multilateral steel negotiations ended with no agreement. As promised, the Bush administration refused to take special action, and also as promised, the steel industry filed over 80 AD and CVD petitions in the summer of 1992. These petitions, as did many rounds of AP petitions before, involved the United States' major trading partners, including Mexico, Canada, Japan, and the European Community.

The superficial parallels to the situation in 1984 are striking. Once again a free-trade–oriented Republican president faced reelection while a torrent of steel industry AP petitions wound through the bureaucracy. Further complicating the political calculus, Bush faced both a weak economy and a much more formidable opponent in Clinton than Reagan had faced with Mondale in 1984. Many veteran industry observers fully expected that the administration would reach an accommodation with the steel industry before the AP process worked

30. The integrated firms' *private* position insistence is somewhat in dispute. A staff member insists that the firms had no interest in an extension. However, an official at the Trade Representative's office insists that the industry was in favor of extension until December 1991 when it became clear that they would not obtain it from the Bush administration.

to a conclusion.[31] The implicit assumption, of course, was that high final AD duties were near certain and that the administration would be unwilling to allow them to be imposed. These expectations for a negotiated outcome grew even stronger as the polls continued to show President Bush lagging behind Governor Clinton. A negotiated outcome was even more likely if the political clout of the industry had remained undiminished, given the tight presidential election.

If the steel industry wanted to use the AP petitions to inject steel policy into the 1992 presidential campaign and pressure President Bush, they failed utterly. President Bush held firm to his pledge not to extend any special deals to the industry despite rising doubts about his chances for reelection. The fact that George Bush never again tried to appeal to the steel sector is emblematic of the industry's decreased political importance in American presidential elections.

With the election of Bill Clinton, a politically powerful integrated steel industry might have used the opportunity to force steel import policy into policy avenues with political discretion and away from the AP process. Instead, the industry pressed the AP petitions.[32] Provisional AD and CVD duties were placed on most of the products covered in the petitions in January 1993 immediately after the Clinton administration took office.

These preliminary duties meant that foreign firms were required to post a bond equal to the estimated margins, so that imported steel prices rose at once. This in turn allowed the integrated firms, by far the most important domestic producers of flat-rolled products, to raise prices significantly on their domestic sales, a goal that had eluded them since slow economic growth began in 1990. The firms were able to credibly raise the prices, even though the duties were only provisional, since market participants fully expected that the duties would become permanent.

The AD process reached its next important juncture in June 1993 when the DOC announced average final duties of 36 percent on flat-rolled products. As expected in AD and CVD cases, individual product and country duties were highly divergent and ranged from under 2 percent to 109 percent. These final estimates pleased steel industry representatives since many were sharply higher than the January 1993 preliminary duties.

The cases then proceeded to the ITC for a final ruling on material injury. The presumption of most observers was that the industry would win at this final stage. However, on July 27, 1993, the ITC ruled affirmatively on 32 cases and negatively on 41 petitions, which translated into about roughly half of the imports in value terms.

31. E.g., see the comments of long-time steel editor George McManus in *Iron Age* (May 1992).

32. After the petitions were filed, a number of foreign suppliers expressed serious interest in a negotiated settlement. E.g., firms and governments from Argentina, Australia, Austria, Brazil, Finland, Germany, Mexico, Poland, Sweden, and New Zealand all submitted proposals to the DOC in May 1993 for "suspension agreements" whereby the firms would agree to raise their prices to preempt duties. The DOC did not seriously consider the proposals.

Carbon steel plate received by far the most comprehensive protection—only France, Italy, and Korea escaped with no definitive final duties. Over 71 percent of plate imports were covered by final definitive duties which ranged from 1.4 to 109 percent. Similarly, 83 percent of corrosion-resistant steel imports were faced with affirmative duties. In contrast, all petitions involving hot-rolled products and all but three of the cold-rolled petitions (representing 34 percent of imports) were dismissed.

While the commission recognized that the industry was suffering injury in the period under review, the majority of the ITC's members concluded that dumped and subsidized imports were not important causes of domestic problems in much of the industry. Instead, the majority of the ITC reasoned that price competition among domestic firms was the main source of difficulty and pointed out that imports were sold at prices that were often *higher* than domestic sources (USITC 1993). The ITC's argument closely echoes that of the 1984 serious injury determination. In that earlier decision, the ITC had also ruled that domestic competition was the main cause of injury in the four minimill-dominated sectors. These two ITC decisions, in other words, reflected a growing recognition that a newly fragmented and highly competitive U.S. steel market makes oligopolistic price discipline very difficult to maintain.

The outcomes took most observers almost entirely by surprise and were highly disappointing to the industry. The best indicator of the shock was the fall of major steel firm stock prices. For example, U.S. Steel, Bethlehem, and National Steel stock prices fell 13, 21, and 27 percent, respectively, on July 22.

In sum, the spotty protection (final high duties placed on some countries' products and all provisional duties removed on others) meant that the integrated industry could count on very little significant comprehensive protection from these cases. The duties' lasting effect will depend in large part on whether countries not covered by final duties will step in to replace the displaced imports. If they do so, the domestic price effects of the duties may be minimal.

For the first time in about 25 years, steel had clearly and publicly lost a major trade policy debate. The industry's most important trump card, the threat of final and near-prohibitive duties obtained through the nondiscretionary AD and CVD process, had been played, and little had come of it. The industry was able to raise prices and garner significant short-term increases in profits during the period of provisional duties, but the strategy did not lead to permanent comprehensive protection.[33]

33. Some observers have noted that the industry still was a net beneficiary of the trade litigation. In particular, the temporary price increases made possible by the prospect of final duties more than paid for the legal fees associated with the cases, according to Gary Horlick, a noted trade lawyer in Washington (Cato Institute conference on foreign steel, November 1993). This strategy may not work in the future, however. The use of AD and CVD petitions may no longer be such a credible threat in the future, so that domestic buyers may be much more reluctant to accept price increases when only provisional duties are in place.

It is difficult, however, to assess the precise political implications of the results of these cases. As repeatedly emphasized in this paper, the AD and CVD process are largely apolitical. Consequently, the disappointing results of the cases do not directly imply that the industry has less political power than in previous years. Nonetheless, the cases would likely have never reached the final ITC decision stage if the industry were still a dominant political force.

The inability to force a comprehensive political solution to the cases is perhaps even more striking given that a Democrat was once again president. One might have expected that President Clinton would have made every effort to reach out to help the integrated steel industry and, by implication, the USW. Instead, it appears that the Clinton administration, like the Republican administration before it, is not inclined to pursue a policy of import restrictions to help Big Steel.[34]

2.6 Conclusion

The U.S. integrated steel industry has long enjoyed unusual success influencing import policy. Steel producers and the steelworkers' union have managed to gain special trade regimes in 1969, 1977, 1982, 1984, and 1989. The most important sources of this political strength have been the cohesiveness of the coalition in favor of import restraints, the number of potential voters in the steel sector, and the legal and rhetorical advantage gained by massive foreign government intervention.

The cohesiveness of industry players when lobbying for protection and the relative disorganization of domestic interests harmed by steel barriers have been particularly important. The main source of the coalition's cohesiveness has been a small number of major integrated producers that traditionally have dominated the industry. This market structure arose out of the scale economies of traditional steel operations where fixed costs acted as a barrier to entry for new domestic rivals. The large scale of operations also created a highly geographically concentrated production pattern. Consequently, thousands of workers were consolidated in a relatively small number of production sites. This translated into a highly powerful political presence in a limited number of states and congressional districts. This market structure is in sharp contrast to domestic steel users who are widely dispersed geographically and must overcome significant transaction cost to organize an effective counterweight to the integrated sector.

34. Another indication of the integrated industry's reduced clout is reported by the *Financial Times*. On October 6, 1993, interested parties were invited to the White House to discuss their positions on a proposed new MSA. Not only did the U.S. trade representative meet first with a group of steel users about the proposal, when steel producers were invited in, the traditional integrated producers were joined by Kenneth Iverson of Nucor, a committed and aggressive free trader. The presence of both steel users and Iverson is a clear indication that the integrated steel producers no longer speak with complete authority on steel issues in U.S. policy-making circles.

The sheer number of steel sector employees also contributed to the political strength of the steel industry. Over half a million Americans were employed in the steel sector in 1974. This voting power was further increased by the geographical concentration in states with large electoral votes (Pennsylvania, Ohio, and Indiana), which gave the steel sector unusual clout in presidential elections.

Finally, extensive foreign government steel sector intervention (in Japan during the 1960s and in Europe and the developing world in the 1970s and 1980s) provided the U.S. industry with major political leverage. Most important, government intervention meant that steel firms could credibly threaten foreign firms with legal action under U.S. trade provisions. The nondiscretionary nature of the U.S. unfair trade process meant that the president would be faced with the prospect of bureaucratically imposed high duties on foreign allies if special deals were not negotiated. The integrated sector also gained major rhetorical advantages from the foreign practices since it diverted attention away from domestic shortcomings, including slowness to adopt modern technologies and high labor costs.

Despite past success and strength, there is evidence that this influence may have finally begun to wane. The unsatisfactory 1989 extension of the VRA program and the inability to obtain significant import restraints in 1993 both point to lessened, though still formidable, clout. The weakened political position of the integrated sector also allowed domestic steel-using industries to play a more prominent role in import policy. Most important, steel users organized an ad hoc coalition during the fight a VRA extension in 1989. The presence of domestic manufacturers (especially exporters) arguing against import barriers acted as an important counterweight to protectionist arguments from the integrated sector. In the event, the VRAs were relaxed and became largely nonbinding for the last two years of the program. While this one-issue user coalition may be inherently unstable over an extended period, it did provide an important impetus for a liberalized steel trade policy.

The reasons for the integrated steel sector's drop in political clout are linked directly to the fundamentally changed market structure of the U.S. steel sector. First, political power has waned simply because of the drop in steel sector employment to only 140,000 in 1992. The much smaller workforce means that fewer politicians have an interest in attracting steelworker votes. Second, the industry is radically different from 20 years ago. Large integrated firms are less and less dominant domestically but at the same time are more competitive internationally. The improvement in competitiveness is largely due to rising labor productivity, increasing use of modern steel production techniques such as continuous casting, and a significantly weakened dollar. This improved economic competitiveness paradoxically has contributed to a weakened political position for the industry since it undercuts the argument that the steel industry is in need of special import policy.

But perhaps the most important change has been the growing importance

of minimills in the U.S. economy. Technological advances have lowered the minimum efficient scale of steel-making operations in a number of product categories. This has allowed minimills to push the integrated mills entirely out of certain product lines and threaten them in the remaining high-end steel products. These changes mean that even if the integrated steel firms can successfully litigate unfair trade cases, these large firms will continue to be under intense competitive pressures from domestic minimills.

Steel industry strategies to secure government intervention will change dramatically in the future as the industry continues to restructure. Steel firms, including many minimills, will likely use unfair trade petitions as long as significant government steel sector intervention continues abroad. From the integrated sector's viewpoint, this strategy is less and less attractive. Such import barriers raise profits to all domestic steel firms and simply accelerate the onslaught of the more efficient minimills. In the future, this will be true even in flat-rolled products that have been the last market sector dominated by integrated producers. The integrated mills will consequently have strong incentives to direct their lobbying efforts to improve their position vis-à-vis the minimills rather than try to erect import barriers.

Hints of a possible change in strategy have begun to appear. Certainly the most important recent example is the strong effort to obtain government relief on health and pension costs of early retirees in the steel industry. Early versions of President Clinton's health care reform would lead to an important reduction in these legacy costs. This would be one of the most important ways to immediately help the integrated sector compete with the minimills, whose relatively young workforces present no such massive burden. The integrated firms also obtained an exemption from President Clinton's proposed BTU tax for the use of coke as a feedstock. If Congress had implemented this tax, the integrated industry's exemption would have helped it compete with the minimills.

Direct lobbying struggles with the minimills, however, will be much more problematic than with importers. Most important, since minimills are domestic firms, they will have domestic allies. The integrated sector will therefore face a struggle with other domestic interests rather than lobby for protection from "unfair" foreign competition. Further, the minimills are often portrayed as classic American success stories—small, innovative entrepreneurs fighting the lumbering, bureaucratic steel behemoths. This gives them a rhetorical advantage in lobbying struggles with the traditional steel mills.

As the minimills grow in importance, we will also likely see a growth in their political strength. If the minimills continue their technological advances, we might even see a growing impatience with a lack of export opportunities abroad. In fact, it is conceivable that in the not too distant future, the most politically powerful steel firms in the United States might focus their lobbying, not on barriers on imported steel, but instead on a reduction in protection abroad.

In short, political lobbying and government lobbying in the steel industry

will likely continue well into the future. The political muscle of the industry will remain formidable. Nevertheless, steel sector lobbying will likely take on a very different form than in the past. The days of integrated producers and the steelworkers' union consistently forcing special trade deals on reluctant administrations are almost assuredly gone forever.

References

Adams, Walter, and Hans Mueller. 1986. The steel industry. In *The structure of American industry*, 7th ed., ed. Walter Adams. New York: Macmillan.

AISI (American Iron and Steel Institute). 1989. *VRAs and the steel consumer.* Washington, D.C.: American Iron and Steel Institute.

———. Various issues. *Annual statistical report.* Washington, D.C.: American Iron and Steel Institute.

Anderson, Keith B. 1993. Agency discretion or statutory direction: Decision-making at the U.S. International Trade Commission. *Journal of Law and Economics* 36(2): 915–35.

Barnett, Donald F., and Robert W. Crandall. 1986. *Up from the ashes: The rise of the steel minimill in the United States.* Washington, D.C.: Brookings Institution.

———. 1993. Steel: Decline and renewal. In *Industry studies*, ed. Larry L. Deutsch. Englewood Cliffs, N.J.: Prentice-Hall.

Boltuck, Richard, and Robert Litan, eds. 1991. *Down in the dumps: Administration of the unfair trade laws.* Washington, D.C.: Brookings Institution.

Crandall, Robert W. 1981. *The U.S. steel industry in recurrent crises: Policy options in a competitive world.* Washington, D.C.: Brookings Institution.

Devault, James. 1993. Economics and the International Trade Commission. *Southern Economic Journal* 60(2): 463–78.

Economic report of the president. 1993. Washington, D.C.: Government Printing Office.

Finger, J. Michael, Keith Hall, and Douglas Nelson. 1982. The political economy of administered protection. *American Economic Review* 72: 452–66.

Gillingham, John. 1991. *Coal, steel, and the rebirth of Europe, 1945–1955: The Germans and French from Ruhr conflict to economic community.* Cambridge: Cambridge University Press.

Gold, Bela, William Pierce, Gerhard Rosegger, and Mark Perlman. 1984. *Technological progress and industrial leadership: The growth of the U.S. steel industry 1990–1970.* Lexington, Mass.: Heath.

Helpman, Elhanan, and Paul R. Krugman. 1989. *Trade policy and market structure.* Cambridge: MIT Press.

Hogan, William T. 1987. *Minimills and integrated mills: A comparison of steel making in the United States.* Lexington, Mass.: Lexington Books.

Howell, Thomas R., William A. Noellert, and Alan W. Wolfe. 1988. *Steel and the state: Government intervention and steel's structural crisis.* Boulder, Colo.: Westview.

International Iron and Steel Institute. 1991. *Steel statistical yearbook.* Brussels: International Iron and Steel Institute.

Iron Age. 1993. Confronting cultural change. April.

Lenway, Stefanie, and Douglas A. Schuler. 1991. Corporate political involvement in trade protection. In *Empirical studies of commercial policy*, ed. Robert Baldwin. Chicago: University of Chicago Press.

Mayer, Wolfgang. 1984. Endogenous tariff formation. *American Economic Review* 74 (5): 970–85.

Moore, Michael O. 1992. Rules or politics?: An empirical analysis of ITC antidumping decision. *Economic Inquiry* 30 (3): 449–66.

Moore, Michael O., and Steven M. Suranovic. 1992. Lobbying vs. administered protection: Endogenous industry choice and national welfare. *Journal of International Economics* 32: 289–303.

———. 1993. A welfare comparison between VERs and tariffs under the GATT. *Canadian Journal of Economics* 26(2): 447–56.

Mussa, Michael. 1974. Tariffs and the distribution of income: The importance of factor specificity, substitutability and intensity in the short and long run. *Journal of Political Economy* 82: 1191–1203.

Niskanen, William A. 1988. *Reaganomics: An insider's account of the policies and the people.* New York: Oxford University Press.

Olson, Mancur. 1971. *The logic of collective action.* Cambridge: Harvard University Press.

Rodrik, Dani. 1986. Tariffs, subsidies and welfare with endogenous policy. *Journal of International Economics* 21 (3): 285–99.

Tsoukalis, Loukas, and Robert Strauss. 1985. Crisis and adjustment in European steel: Beyond laisser faire. *Journal of Common Market Studies* 23 (3): 207–28.

U.S. Congress. Congressional Budget Office. 1987. *How federal policies affect the steel industry.* Washington, D.C.: Government Printing Office.

U.S. Congress. House. Ways and Means Committee. 1984. *Problems of the U.S. steel industry.* Serial 98–93. Washington, D.C.: Government Printing Office.

———. 1989. *Steel Import Stabilization Extension Act.* Serial 101–30. Washington, D.C.: Government Printing Office.

USITC (U.S. International Trade Commission). 1982. Certain steel products from Belgium, Brazil, France, Italy, Luxembourg, the Netherlands, Romania, the United Kingdom, and West Germany. USITC Publication no. 1211. Washington, D.C.: U.S. International Trade Commission.

———. 1984. Carbon and certain alloy steel products. USITC Publication no. 1553. Washington, D.C.: U.S. International Trade Commission.

———. 1989a. Annual survey concerning competitive conditions in the steel industry and industry efforts to adjust and modernize. USITC Publication no. 2226. Washington, D.C.: U.S. International Trade Commission.

———. 1989b. The effects of the steel voluntary restraint agreements on U.S. steel-consuming industries. USITC Publication no. 2182. Washington, D.C.: U.S. International Trade Commission.

———. 1993. Certain flat-rolled carbon steel products from Argentina, Australia, Austria, Belgium, Brazil, Canada, Finland, France, Germany, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Poland, Romania, Spain, Sweden, and the United Kingdom. USITC Publication no. 2664. Washington, D.C.: U.S. International Trade Commission.

———. Various issues. Monthly Report on the Status of Steel Industry. Washington, D.C.: U.S. International Trade Commission.

Walters, Robert. 1988. *U.S. negotiations of voluntary restraint agreements in steel, 1984: Domestic sources of international economic diplomacy.* Washington, D.C.: Pew Charitable Trusts.

Williams, Harold, ed. 1978. *Free trade, fair trade, and protection: The case of steel.* Kent, Ohio: Kent State University Press.

Williams, Lynn. 1988. Basic steel industry conference—1988 Policy statement. Washington, D.C.: United Steelworkers of America. Mimeograph.

World Steel Dynamics. 1990. Core report NN. New York: Paine-Webber.
———. 1992. Battle of the minis, part II. New York: Paine-Webber.
———. 1994. Core report VV. New York: Paine-Webber.

Comment

William C. Lane

By selecting the subject of steel protection in the 1980s, Michael Moore has chosen one of the most interesting examples of the political economy. While it is unlikely this subject will ever find its way into a made-for-TV movie, the plot does have a certain Shakespearean appeal.

Imagine: The curtain opens with the king (U.S. steel industry) at the height of his power. He has just won a long sought after prize (comprehensive import protection). But as events would have it, the prize is a mixed blessing. The king discovers that his chief competitors (minimills and foreign steel companies) are also benefiting from his prize. Even more disturbing is the realization that possession of the prize is fostering great unrest among his countrymen (customers). In fact, his countrymen are so upset that they form an army (Coalition of American Steel-Using Manufacturers) and challenge the king's authority. After a heated battle, the curtain falls, with the king's power diminished, the prize lost, and the king's competitors stronger than ever.

Whether this drama qualifies as comedy or tragedy is uncertain, but it does serve to illustrate what happened to the U.S. steel industry during the 1980s. In 1984, the political influence of the U.S. steel industry was at a new high. By convincing the U.S. government to impose steel quotas on imports from 19 countries and the European Community, Big Steel had won the type of comprehensive import protection that it had long sought. All that remained was to extend the quota coverage to include the few missing countries (Canada and Sweden) and take steps to ensure the quota program does not expire.

The duration of the new trade regime was initially set at five years. But most trade practitioners believed convincing Congress to extend the program for another five years would be relatively easy. After all, the steel industry's political clout was well established. Besides, the protectionist tool being sought—voluntary restraint agreements (VRAs)—was an unfamiliar concept which largely escaped public scrutiny. Finally, foreign countries had a big incentive to support the new VRA program because VRAs not only exempted participating countries from U.S. trade laws but rewarded them with a share of the "quota rent."

William C. Lane is international governmental affairs manager for Caterpillar, Inc. During 1988–89, he played a prominent role in organizing and directing the 320-member steel consumer group Coalition of American Steel-Using Manufacturers (CASUM).

In spite of these factors favoring renewal, the 1988–89 VRA debate had a most unexpected outcome. After a bruising political fight with a newly formed coalition of U.S. steel consumers, the steel industry was only able to win an abbreviated VRA extension that was, in many ways, little more than a placebo.

How did the politics of protectionism change so quickly? Did market forces overwhelm the steel industry's hold on Washington? Or was it the growth of new, more-efficient minimills that upset the political balance? What about steel users? After being on the political sideline for 30 years, why did they suddenly feel compelled to aggressively challenge the steel industry's call for more protection?

Moore's paper does an excellent job of answering these questions by examining the economic and political dynamics that eventually invalidated the steel industry's claim for industry-specific protection. He provides a thorough history of U.S. steel programs since the 1960s. His analyses of trade flows, production output, and capacity levels allow for a complete understanding of the effectiveness of the various protectionist schemes employed since 1969. He also avoids the common pitfall of viewing the steel industry from only the integrated mills' point of view; the rise of minimills and resurrection of reconstituted mills are important elements of his paper.

What sets Moore's paper apart from other studies of the steel industry, however, is his in-depth understanding of the events that changed the "politics of protectionism." Quota-induced shortages in 1987 and 1988 forced steel users from the political sidelines. Once that happened, the political battlefield that the steel industry had learned to master changed dramatically. No longer could Congress view protection for the steel industry as a domestic versus foreign issue. With steel users engaged in the debate, Congress was in the uncomfortable position of having to favor one U.S. industry over another. In many ways, the 1988–89 VRA debate was more a fight about U.S. competitiveness than about the evils of protectionism.

The compromise that emerged in 1989 reflected this new political reality. New steel quotas were extended for two and a half years not five. The new VRA program provided a user-friendly short-supply mechanism. Most important, the new quotas were so large that they had little or no impact on international commerce.

The price the steel industry paid for this illusion of protection was significant. In exchange for new VRAs, the steel industry had to agree to exempt foreign steel producers from U.S. trade laws. In other words, the industry had to give up all of its leverage to discipline foreign subsidies and unfair pricing.

Subsequent actions by the steel industry further confirmed the extent to which the steel industry lost its bid for special protection. When VRAs finally expired in March 1992, Big Steel abandoned all efforts to win industry-specific protection from Congress. Instead, the steel industry made good on its long-standing threat to file scores of AD and CVD trade cases.

Surprisingly, few in government or industry objected to this new develop-

ment. After all, Big Steel was availing itself of the same trade rules that apply to any other industry. The U.S. response was merely to evaluate the cases and render the appropriate decisions. Rather than creating havoc on the international trading system as some steel industry executives predicted, the cases were handled in stride. Of the 84 trade cases filed, the steel industry won 32. This outcome served to confirm the view that normal trade remedies did in fact work for the steel industry. Since then there has been no serious suggestion that the U.S. steel industry needs or deserves industry-specific protection.

While the paper was comprehensive, a few issues deserve more attention from Moore.

1. Why didn't consumers of other protected industries (i.e., textiles, autos, and sugar) challenge protection as aggressively as steel users did in 1988–89? What was unique about steel during this period?
2. Why did the steel industry accept such a lopsided compromise in 1989? Wouldn't the threat of a massive filing of trade cases dampen imports far more than a 30-month extension of nonbinding quotas?
3. Did the 1988–89 steel debate discredit VRAs as a trade policy tool? Prior to 1989, VRAs were ballyhooed as a managed trade tool that really worked. After the VRA debate, this "gray area" trade remedy was rarely proposed. In 1993 the General Agreement on Tariffs and Trade even disallowed VRAs from being used as a part of a safeguard action.

While Moore's paper will not become a Shakespearean classic, it is an important contribution to the study of the political economy and how it affects trade policy. It should be required reading for any serious student of business and government.

Comment

James R. Markusen

The steel industry is certainly an excellent choice for a case study of the political economy of trade policy. It is an industry that has had significant difficulties in many countries over the last several decades, been a focus of an industrial strategy in others, and been a source of considerable political debate in many more countries than just the United States. Next to agriculture, steel was perhaps the most distressed, regulated, and/or subsidized industry in many countries during the decades of the 1960s through the 1980s. Indeed, in many respects an international focus for the paper might have been preferable. I believe that the exclusive U.S.-centric focus of the paper leads to shortcomings, as I

James R. Markusen is professor of economics and chairman of the Department of Economics at the University of Colorado, Boulder, and a research associate of the National Bureau of Economic Research.

will suggest. While there are many fine aspects to this paper, my comments will focus on what I regard as the two difficulties.

Moore gives us a rather stark view of the U.S. steel industry in the three decades of the 1960s through 1980s. He characterizes the industry as using outdated technology and management techniques and awarding overly generous labor contracts. Minor reference is made to the nature of world steel markets, foreign subsidies, foreign development strategies, and a badly overvalued U.S. dollar in the early 1980s. The U.S. steel industry is portrayed as a rent seeker, resistant to structural change and modernization.

It may well be true that the U.S. industry suffered from self-inflicted ills. It may also be true that it engaged in aggressive rent-seeking behavior and resisted structural change. I have few problems with these notions. However, economic theory does lead us to expect efficient firms, and so it would be good to have a convincing explanation, not just an assertion of industry inefficiency. But this is likely beyond the scope of the paper.

Based on my limited knowledge of the industry, I am concerned with the author's neglect of the role of the worldwide steel industry's problems and foreign government steel programs. I believe that the paper presents a distorted view of the situation and possibly arrives at incorrect conclusions.

I am sorry that I have not had time to go back and review the history of the industry, but my general recollections of the 1960s through 1980s are as follows. First, the world steel industry was characterized by tremendous excess capacity. Indeed, there were significant additions to capacity in some countries as governments, as in Brazil, targeted the steel industry as part of a development strategy. Many countries (particularly European) were heavily subsidizing production and capital expenditures for modernization and expansion. Government ownership allowed huge losses to be passed on to taxpayers (e.g., British Steel). In these respects, the steel industry is quite different from some of the other industries analyzed at this conference, such as automobiles.

In general, it seems that during the 1960s through 1980s, there was in fact very substantial subsidization occurring outside the United States and, I am sure, substantial dumping into the U.S. market by foreign firms desperate for any sales at or above marginal cost. Subsidized sales and dumping really were occurring and were not simply figments of the U.S. industry's public relations campaign.

We could take the view of many economists that we should welcome foreign subsidies, thank them for selling to us below costs, and not worry about the domestic industry and its workers. Or we could take the present author's approach, *implicitly* dismiss the relevance of foreign subsidies, and conclude only on the basis of the poor performance of the domestic industry that protection is unjustified.

But I think that those economists' arguments are really beside the point. If foreign governments are subsidizing and if foreign firms are dumping, then it is perfectly appropriate for U.S. firms to seek relief under trade remedy laws.

This is proper and legal under U.S. laws and General Agreement on Tariffs and Trade (GATT) rules. If economists do not like antidumping (AD) and countervailing duty (CVD) laws, perhaps our criticism should be directed at them and not always at the firms which avail themselves of these legal options.

The author sees a moribund industry facing "efficient foreign producers," obtaining relief through political manipulation. There is considerable innuendo to the effect that such relief is undeserved. Yet the author himself seems uncertain about this at several points. He states on several occasions that the International Trade Commission (ITC) processes on AD and CVD are relatively apolitical. During the period, the ITC found in favor of the industry on a great many occasions. It appears that the ITC found something that is being missed here. Clearly, not all of the foreign producers were efficient.

The author states that "the steel industry, in other words, has obtained special trade policy treatment unavailable to nearly all other domestic industries." First of all, that is almost certainly not true (depending on the meaning of "nearly all other")—agriculture, textiles, clothing, shoes, autos, shipping, and even petroleum in the 1950s and 1960s come to mind. Second, the author needs to deal seriously with the possibility that there was something going on in the world that justified relief under U.S. and GATT law, if not under economic theory.

This brings me to my second main point. Since relief for the industry was unjustified on any legal or economic grounds in the author's mind, he attempts to explain the industry success in seeking relief up to 1989 in terms of a traditional lobbying model. In part, high concentration and unionization are characteristics that win protection in such a worldview.

This model has great appeal to economists. My problem here is that it almost always performs poorly in empirical tests. Measures of lobbying power such as concentration and unionization are not good explainers of protection in the United States. Industries that are in trouble are the ones that tend to receive protection. Let me refer to some results from the work of Daniel Trefler, including a recent paper (Trefler 1993).

Trefler finds that special interest models of trade policy perform only moderately well in empirical tests. By several criteria, concentration and number of firm variables are not economically important. In fact, he finds that none of the lobbying cost variables are important.

Trefler notes in his work that special interest lobbying models cannot explain the high levels of protection in industries such as textiles, clothing, lumber, and leather. These industries are neither highly concentrated nor unionized, employ less-skilled labor, face high rates of unemployment, and operate under decreasing returns. Trefler sees the explanation more in terms of a public interest group approach, or what I would term a "conservative social welfare function," to use Max Corden's term. The public opposes protection unless it helps workers in distressed industries and redistributes income to the lower-paid, less-skilled workers. Unemployed, low-paid workers are recipients of protection.

Trefler arrives at several conclusions which are consistent with results that I have seen elsewhere: (1) Concentration and other lobbying variables are economically unimportant; scale is important but negatively related to protection. (2) Unionization is negatively related to protection, although the sign switches to positive if textiles are omitted. (3) High protection is found in industries with significant import penetration, semiskilled workers, and high unemployment rates.

I would like to offer an alternative explanation, consistent with the same facts Moore presents for the steel industry. First, the steel industry, although inefficient with overpaid workers, was subject to competition from heavily subsidized foreign firms. Significant dumping was occurring by firms with huge losses and excess capacity. For part of the period (particularly the early 1980s), the U.S. dollar was badly overvalued.

Second, subsidies and dumping were deemed to exist and to be causing injury by the ITC (though not the only cause of the industry's troubles) and relief was granted on many AD and CVD cases.

Third, comprehensive quotas were introduced, not because of the great political clout of the industry, but because they were much preferred to the tangled web of duties that would otherwise be legitimately won through AD and CVD cases.

Fourth, protection was withdrawn in the 1990s, not because the industry lost the clout (that it may never have had), but simply because protection was no longer justified. This change was partly due to the rationalization of the U.S. industry, partly due to reduced capacity and subsidization in Europe and elsewhere, and partly to the stronger depreciation of the U.S. real exchange rate after 1985. The withdrawal of protection, like its institution, is consistent with a public interest or conservative social welfare function theory of trade policy.

Reference

Trefler, Daniel. 1993. Trade liberalization and the theory of endogenous protection: An econometric study of U.S. import policy. *Journal of Political Economy* 101:138–60.

Comment Michael H. Moskow

Moore's main argument is that the change in the domestic structure of the U.S. steel industry has led to significantly reduced political influence by large integrated producers. Industry fragmentation has developed because of the growth

Michael H. Moskow is president of the Federal Reserve Bank of Chicago. Prior to this he was professor of strategy and international management at the J. L. Kellogg Graduate School of Management at Northwestern University. He is a member of the board of directors of the National Bureau of Economic Research. During the Bush administration he was deputy U.S. trade representative.

of minimills, reconstituted mills, and foreign ownership or joint venturing with U.S. firms. Whereas, historically, a small number of large integrated producers executed considerable influence on U.S. policymakers, Moore believes that the above structural changes and resulting fragmentation have caused a major reduction in the integrated producers' political power.

Although Moore provides considerable support for his main thesis, he does not address the underlying reason that U.S. integrated steel producers have sought protection from the federal government. Is it primarily because there is worldwide excess capacity in steel caused by extensive government subsidies in other countries or is it because of inefficiencies particular to the U.S. producer? Since U.S. government policy has been based on the assumption that foreign government subsidies and excess capacity is the problem, Moore could provide an extremely useful service by analyzing this issue and providing his views. My personal view is that subsidies are the underlying problem, but I would welcome a thorough analysis of this issue. While serving as deputy U.S. trade representative in the Bush administration, one of my major responsibilities was to negotiate a multilateral steel agreement (MSA) covering over 30 countries. The main purpose of the agreement from the U.S. standpoint was to eliminate or significantly reduce foreign government subsidies (mostly from European countries) to their steel producers. In return, duties on steel would be reduced to zero, thus increasing access of foreign producers to the U.S. market. New dispute resolution procedures were drafted that would have resolved rapidly any claimed violations of the MSA through a process culminating in binding arbitration.

We made it clear to our trading partners that President Bush would not extend the voluntary restraint agreement (VRA) on steel that was scheduled to expire on March 31, 1992. The parties made strenuous but unsuccessful efforts to reach agreement on the MSA before the March 31 deadline.

Some uncertainty persisted among other countries and within the steel industry as to whether President Bush would let the VRAs expire if negotiations on the MSA were unsuccessful. The speculation was fueled by Bush's decision to extend for two years on a phase-out basis the VRA for the machine tool industry that expired on December 31, 1991. Nevertheless, no discussion of extending the steel VRA ever took place within the Bush administration, and only the stainless steel producers attempted to convince the administration and Congress to extend their VRA.

The two key unsolved issues in the MSA negotiations were the level of permitted subsidies and the process for "consultations" on antidumping cases. We had narrowed the areas for permitted subsidies significantly but were never able to bridge the gap. The antidumping consultation issue was particularly difficult because, in my view, it masked an underlying philosophical difference between the United States and other countries. The MSA did not change the U.S. antidumping laws, but other countries seem to believe that consultations on individual cases could somehow significantly reduce the number of steel

cases filed or flowing through the full process for handling cases. There were no objections to the U.S. trade representative's hearing other countries' views on individual cases, but this could not in any way interfere with the legislated process that the Department of Commerce and International Trade Commission (ITC) followed in deciding these cases. If this was the extent of "consultations," then what benefit would this be to other countries?

Another important issue in negotiations was the phase-out of existing subsidies, particularly in reference to what were called "countries in transition." While we wanted to encourage Eastern European countries to continue shifting from socialistic to market economies, we had to find ways to temporarily ease the impact of removing their steel subsidies. Another example was Brazil, which was attempting to privatize its steel industry but needed a transition period of continued protection to avoid massive dislocations. VRAs or some form of temporary quota for these countries in transition was part of the negotiations.

Following the break-off of negotiations in March 1992, the U.S. integrated steel producers filed 84 countervailing duty and antidumping cases that were subsequently largely decided against the steel producers by the ITC. The producers are currently appealing the ITC decisions. Strong attempts were again made to agree on an MSA in late 1993 as part of the Uruguay Round GATT negotiations. The round includes the elimination of steel tariffs, which was part of the MSA, but negotiations on the key provisions of the MSA reducing subsidies in the steel industry were again unsuccessful.