

**Report to the President**

# **Global Steel Trade: Structural Problems and Future Solutions**

**July 2000**

**U.S. DEPARTMENT OF COMMERCE  
International Trade Administration**



# Preface

This report is the product of an intensive eleven-month U.S. Department of Commerce examination of market-distorting practices and trade barriers in the global steel industry and their possible contribution to the 1998 U.S. steel crisis. The report also recommends solutions to avoid future crises.

As part of the White House Steel Action Program announced on August 5, 1999, the President tasked the Department of Commerce's International Trade Administration with conducting "an intensive examination and analysis of current subsidies given to producers of steel and inputs for finished steel products and the extent to which government actions have led to other market-distorting trade barriers." This report examines what happened to the U.S. industry in 1998; analyzes underlying structural problems and market-distorting practices in key steel exporting countries (Russia, Japan, Korea, and Brazil); discusses the aftermath of the crisis in the United States and abroad; looks at several countries that may pose new concerns for global steel trade over the next decade (China, Ukraine, and India); and makes recommendations on how to address these market-distorting practices and trade barriers.

Of course, a number of factors contributed to the steel industry's situation in 1998. The purpose of this report was not to quantify or weigh these factors; rather it was to gain a better understanding of both the short- and longer-term structural problems the industry faced in order to develop domestic, bilateral, and multilateral strategies to address them head-on, so that future trade crises can be prevented. The recommendations seek to do this in a way that is constructive, consistent with our World Trade Organization obligations, and sensitive to the needs of adversely affected communities and workers.

In preparing the report, Commerce Department staff drew upon a wide range of sources in conducting extensive research on the state of the steel industry in the United States and around the world. In numerous meetings and discussions in the United States and abroad, Commerce officials consulted:

- Representatives of the U.S. steel industry, workers, and their union leaders.
- Representatives of foreign steel producers and their workers.
- Foreign government and embassy officials.
- Trading companies, steel service centers, and other consumers.
- Industry experts, including academics, bankers, and investment analysts.
- Trade associations representing U.S. and foreign industries.

The Commerce Department also commissioned research reports on the structure and condition of the steel industries in Brazil, China, India, Japan, Korea, Russia, and Ukraine. While most of the research was performed between September 1999 and June 2000, every effort has been made to incorporate the most recent data, trends, and developments.

The President initiated the Steel Action Program in response to a crisis that hit the U.S. steel industry in 1998, prompted by a flood of low-priced imports and characterized by company bankruptcies and steelworker layoffs. The analyses and conclusions in this report are not intended to address the consistency of any of the industry or government practices discussed with either U.S. laws or international rules, and they do not constitute official findings or determinations under any U.S. laws or international agreements. Rather, these are practices that have contributed to distortions in both domestic and global steel markets.

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## CHAPTER 1

# Overview

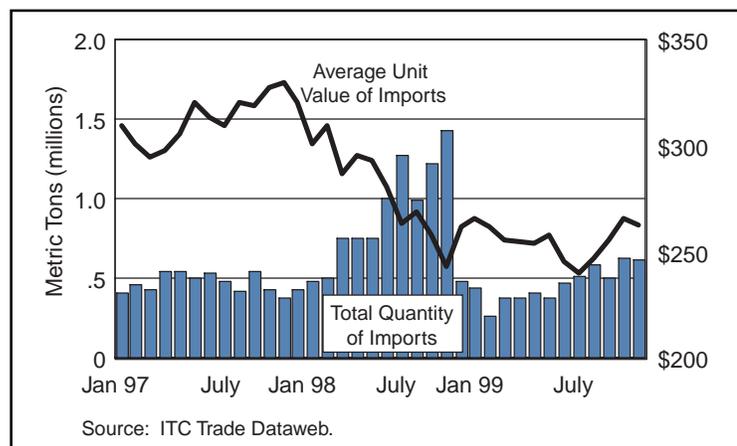
### Introduction

Over a six-month period in 1998, the U.S. steel industry saw its position in a strong U.S. market severely disrupted as low-priced imports reached all-time record levels.

- Imports of hot-rolled steel—the focal point of the crisis—increased over 70 percent from the previous year’s record high, while the average prices of these imports fell nearly 20 percent (*Chart 1-1*)<sup>1</sup>.
- Capacity utilization rates for U.S. producers dropped to 75 percent at year’s end from over 90 percent earlier in the year (*Chart 1-2*).
- While shipments by domestic producers were up slightly in the first half of 1998, they fell 11 percent between the first and second halves of 1998.
- Accumulating losses drove six companies into bankruptcy.
- Thousands of U.S. steel workers were laid off.

It was not until the second half of 1999 that the industry showed signs of recovery:

- Prices for a number of steel products are now up from the depressed levels seen in late 1998 and into 1999.



1-1. U.S. Imports of Carbon Hot-Rolled Flat Products, 1997–1999

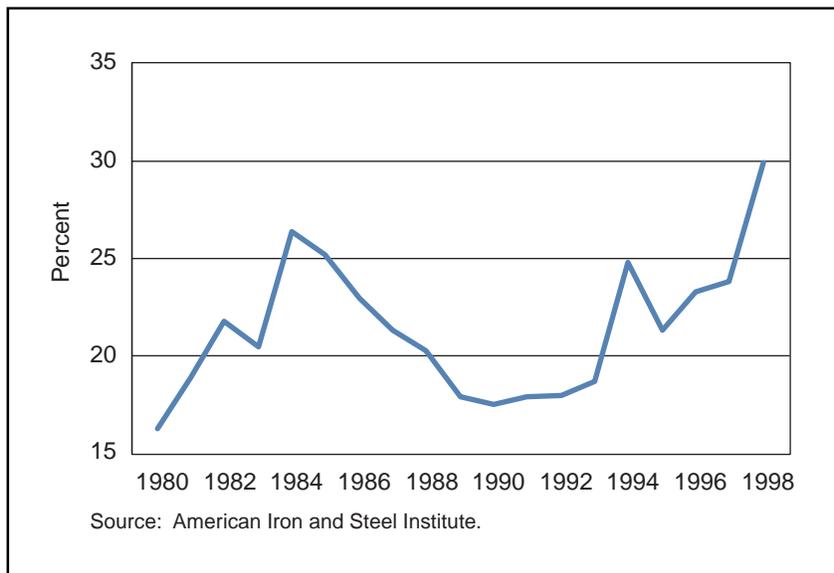


1-2. Monthly Capacity Utilization Rates

- New orders are rising and shipments are up 21 percent.
- The industry has been operating at more than 90 percent of capacity so far this year versus 80 percent during the same period last year.

## The 1998 U.S. Steel Import Crisis

The bulk of the increase in steel imports in 1998 and the drop in prices were attributable to a few countries: Russia, Japan, Korea, and Brazil.<sup>2</sup> Some foreign steel producers and traders cut prices significantly. In the last six months of 1998, high-quality Japanese steel was being sold at prices approaching lower quality Russian products. This decline in prices led to a steep rise in import penetration in 1998. Import penetration exceeded the previous peak reached in 1984 that resulted in the imposition of voluntary restraint agreements (*Chart 1-3*).



1-3. Import Penetration: Steel Mill Products, 1980-1998

The Asian financial crisis and the catastrophic drop in demand in Asia compounded the problems caused by overcapacity in the global steel industry (*see box, next page*).<sup>3</sup> The financial crisis quickly resulted in deep recessions in many Asian economies. Capital flight contributed to the significant depreciation of many Asian currencies. As investment and consumption in Asia fell, the demand for steel plummeted. When financial turmoil spread to other countries, such as Russia and Brazil, more and more steel was diverted to the remaining healthy markets, including the

United States. But long-term structural factors—government assistance, impediments to importing, noncompetitive market structures, and unsound banking practices—were also at play. These structural issues have often led to unfair trade problems over the years. Since 1980, almost 40 percent of the unfair trade cases investigated in the United States have been related to steel products. More than half of these steel cases resulted in some form of trade relief.

## Short-Term Factors Behind the Crisis

A number of short-term factors emerge as explanations for how the 1998 U.S. steel crisis came about.

**Lost Asian Demand.** The main precipitating event was the Asian financial crisis. Beginning with Thailand in mid-1997, financial troubles quickly spread throughout Asia, bringing with them the worst economic downturn to hit the region in thirty years. As economies collapsed, demand for steel in the region quickly dried up. Asian steel producers and traditional exporters to the region, such as Japan, Russia, and Brazil, sought other markets. The situation was further exacerbated as the financial crisis spread to Russia and Brazil by mid-1998.

**Currency Depreciations.** The Asian crisis led to currency depreciations in many of the world's largest steel-producing countries. Weaker currencies enabled exporters in these countries to lower their dollar-denominated

steel prices and still make money (as dollars converted into greater amounts of local currency). Korean and Brazilian steel became particularly attractive to the U.S. market, due to substantial depreciations.

- **Korea.** Between 1997 and 1998, the Korean currency, the won, lost 32 percent of its value compared to the U.S. dollar. Effectively, this meant that Korean steel, which previously had sold for \$350 a metric ton (MT) could now be sold for \$238, without any change in the amount of local currency received. Of course, exchange rate changes cut both ways: won prices rose for imported inputs such as iron ore and coke, which are typically denominated in dollars.
- **Brazil.** In Brazil, the local currency gradually declined 12 percent over the course of 1998. However, because the Brazilian steel industry sources all of its raw materials domestically, there was no significant increase in input costs. This gave Brazilian producers considerable flexibility to reduce dollar-denominated prices in order to maintain their level of exports to the United States.

### *Overcapacity in the Global Steel Industry*

Overcapacity is a relative term, and there is no single agreed-upon definition. Generally, the term is used to describe the fact that global steelmaking capacity has been consistently well-above global steel production over the long term. In the case of steel, this may be attributable to the fact that less than perfect market forces dominate the industry, such that government supports and other activities have sustained uneconomic capacity and production. Although there may be different ways to measure global steelmaking capacity and production, most industry experts that have analyzed the issue find a sizable and consistent gap between capacity and production over the long term.

A 1999 Organization for Economic Cooperation and Development (OECD) report concludes that world steelmaking capacity has remained well-above production between 1985 and 1999. The report states that world steelmaking capacity increased by almost 150 million metric tons (MT) during this time and that by 2001 it will have increased by an additional 45 million MT. However, steel production has increased in “distinctly smaller proportions,” resulting in a widening gap between production and capacity. (Efforts are currently under way in the OECD Steel Committee to refine the capacity measurement pursuant to questions raised as to the accuracy of some of the underlying country capacity data.)

Most other steel analysts have also concluded that there is significant overcapacity in the global steel industry. A World Steel Dynamics study of capacity utilization rates reached conclusions very similar to those of the OECD. Moreover, the London-based Iron and Steel Statistics Bureau (ISSB) estimated world excess capacity to be 250 and 275 million MT in 1997 and 1998, respectively.

Comparable findings of overcapacity have been made for specific regions and countries. The ISSB calculated 100 million MT of overcapacity in Eastern Europe and countries of the former Soviet Union, 70 million MT in Asia, 50 million MT in the European Union (mainly in Italy and Spain), and 15 million MT in the United States. The United Nations estimated that overcapacity in Russia and Ukraine was between 20 million and 30 million MT. Analyzing the Japanese steel industry, a 1999 report by a committee sponsored by the Ministry of International Trade and Industry, which took into account domestic and global demand over the long term, estimated that 15 percent of Japanese steelmaking capacity, about 17 million MT, was “surplus.” Finally, one of the conclusions reached by a recent International Monetary Fund report was that “excess production capacity” had been created in the Korean steel industry as a result of government influenced private investment (although the report did not explain how this conclusion was reached). While estimates from various sources indicate that there is substantial unused steelmaking capacity throughout the world as a whole across many years, high fixed costs and other factors (including, for example, protected markets and subsidies) encourage steel makers to operate facilities at high levels of capacity. Such high capacity utilization, combined with substantial unused capacity overhang, tends to suppress prices worldwide (see box “*The Economics of the Steel Industry*” in Chapter 2).

The currency depreciations in Russia and Japan were less of a factor in 1998.

- **Russia.** Because the weakening of the ruble came relatively late in the crisis, it appears that few imports from Russia could have reflected the depreciation prior to the dramatic reduction in Russian imports at the end of 1998 as a result of antidumping cases.<sup>4</sup>
- **Japan.** In Japan, the depreciation of the yen clearly played a role in the ability of Japanese steel makers to charge lower dollar prices. However, import data indicate that cuts in Japanese prices for key products exceeded the amount of the yen's depreciation.

**Strong U.S. Demand.** The growing U.S. economy stood in stark contrast to the convulsions and contractions besetting many economies around the world. In the United States, demand for steel was strong and, until the middle of 1998, domestic prices generally were still high. Given the openness of the U.S. market and prevalent high demand and prices for steel, foreign produced steel naturally found its way to the United States.

**General Motors Strike.** An unexpected strike of General Motors workers during the summer of 1998 had the effect of adding a degree of uncertainty. When the strike began, it was unclear how long it would last and what effect it would have on an already jittery steel market. The financial crisis abroad was softening world steel demand, and U.S. imports were beginning to increase. However, in the end, the strike was relatively short-lived (fifty-four days) and its direct impact was minimal and focused on a few products, particularly cold-rolled steel.

## Long-Term Factors Behind the 1998 Crisis: Market-Distorting Trade Practices

Beyond the immediate causes of the 1998 steel crisis, the underlying structural issues that have historically plagued the global steel industry are crucial to understanding the events that took place in 1998.

### *Unique Characteristics of Steel Trade*

The world steel industry is characterized by a variety of noncompetitive practices. The effect of such practices is that investment decisions as well as pricing and sales almost certainly are different from what would occur in a purely competitive market. In a competitive industry, production and ultimately capacity should respond to market signals. The steel industry is not the only sector where demand fell as a result of the Asian crisis. It is, however, one of the few where there was a very large increase in U.S. imports relative to domestic demand. There was no dramatic increase in U.S. imports of autos despite falling sales in Asia. There was no rise in imports of chemicals or electronic products on the order of steel imports. The reason for this is that steel tends to be unique in both its industry characteristics and in the degree to which noncompetitive market conditions exist as a result of government actions and inactions.

Because of the importance of the steel industry in many national economies, the marked tendency among all countries during an economic downturn or crisis is to preserve productive capacity in the hopes of saving jobs and maintaining economic stability (*see box*).<sup>5</sup> One way or another, steel companies around the world benefit from government practices and policies that forestall adjustments mandated by the market. As a result, market forces are not able to bring world capacity and supply in line with demand. Because capacity and production cuts are resisted, excess capacity tends to be maintained and more steel tends to be produced. This greater supply of steel worldwide has a dampening effect on prices in good times and bad.

The thirty-year history of repeated unfair trade actions is symptomatic of underlying market-distorting practices in the global steel market (*see box*).<sup>6</sup> Market-distorting practices can spill over into the global marketplace during cyclical downturns by helping steel companies maintain or increase market share and

productive capacity via the exporting of low-priced steel. Such practices enabled the steel companies in the countries most involved in the 1998 crisis to set low prices for exports and forestall downsizing adjustments mandated by the market.

### ***History of Steel Trade Friction***

The first steel dispute occurred in the United States in 1968. The filing of countervailing duty cases against subsidized European steel makers led to voluntary restraint agreements. These agreements ended in 1974 when the global steel market recovered. Another crisis and subsequent filing of dumping cases—primarily targeting Japanese exports—led to an attempt in 1977 to set minimum “fair value” prices for imports through the “trigger price mechanism.”

This policy proved ineffective against European exports which were above the minimum prices but below the European cost of production. To address this problem, antidumping cases were then filed against three-fourths of European steel exports to the United States and a new trigger price mechanism was put into place. This policy also eventually proved ineffective, which led to the filing of antidumping and countervailing duty cases in 1982. The rates of subsidization in these cases reached over 20 percent for some countries, while dumping rates topped 40 percent. Eventually, new voluntary restraint agreements were reached, which lasted until 1992.

After concluding the voluntary restraint agreement with most of Europe, however, imports surged from developing countries and other developed countries. The U.S. steel industry reacted by filing a large number of trade cases. Extremely high dumping and subsidization rates were established in many of these cases. The number of different products found to have been dumped or subsidized was also noteworthy. Between 1982 and 1986, for example, eleven steel products from Brazil alone were found to have been dumped or subsidized. The early 1980s also saw the first antidumping and countervailing duty cases filed against Korean steel.

In 1989, the United States launched an effort to negotiate a global Multilateral Steel Agreement to abolish subsidies in exchange for the end to quantitative restraints. When the voluntary restraints expired in 1992, another set of trade cases were filed. These cases included Japan, Brazil, Korea, and numerous European countries, and a number of resulting orders remain in place today. Efforts to negotiate a multilateral agreement continued until 1997, without success.

In addition to the dumping and subsidy cases filed over the years, four “Section 201” cases (which address import surge situations) have been pursued on various steel products.

### **Russia**

Perhaps the most significant long-term factor leading up to the 1998 steel crisis has been the emergence of Russia as one of the world’s top steel exporters. In the period before the crisis, the Russian steel industry was caught between two systems. A large steelmaking capacity built in Soviet times to meet domestic needs faced a domestic market in which demand had collapsed. Privatized companies continued to do business by bartering their products, often not paying their workers, suppliers or taxes, knowing that bankruptcy procedures rarely resulted in the closure of a company. In addition, state-controlled input suppliers continued the old command economy tradition of providing low-priced inputs and transport to the steel industry. In this environment, there was a tendency for more steel to be produced than demand would otherwise dictate and for steel to be sold at prices not necessarily related to the cost of production. As a result, Russia experienced trade frictions with a number of countries, of which the United States is only the latest example.

### **Japan**

Lax enforcement of antitrust laws is the primary market-distorting trade practice in Japan affecting steel. The U.S. government has longstanding concerns regarding the lack of effective enforcement of competition rules in Japan in general,<sup>7</sup> and coordination within Japan’s steel sector warrants greater scrutiny. Many steel industry experts note that a “cooperative system” exists among the major steel producers in Japan. Apparent

coordination on production and other matters help allow Japanese steel companies to charge high prices for their products in Japan. Because domestic supply needs to be controlled for such a system to work, import barriers of one sort or another are kept in place to keep import volumes to a minimum. A protected domestic market confers a competitive advantage on Japanese firms. Revenues from high-priced home market sales can be used to increase competitiveness through, for instance, spending on research and development. Domestic revenues can also be used to sustain low-priced exports, which can give rise to concerns of unfair trade.

## **Korea**

The financial difficulties of the Korean steel industry as a whole in the 1990s can be linked to excessive borrowing to fund over-investment in under-performing capacity. Massive new investments in steel during the 1990s were encouraged by unsound, often government-influenced, bank lending practices. A number of nonviable companies, which accounted for almost a quarter of domestic capacity, were kept in operation before and during the crisis, and continued to produce for domestic and export markets.

The government has also supported the development of Korea's largest steel producer—POSCO—to the point that POSCO has achieved a monopolistic position in the Korean steel market. As a government-owned company, POSCO was used by policymakers to further the government's industrial development objectives, which included providing low-cost steel to downstream producers. The Commerce Department found that to be an export subsidy. Additionally, POSCO's dominant position raises fundamental concerns about competition within the Korean steel market and possible trade effects that POSCO's continued dominance may have in the future. Korea's antitrust authorities, the Korean Fair Trade Commission (KFTC), looking at the Korean market in mid-1998, found that POSCO's dominance had anticompetitive effects and recommended splitting up the company. Yet the Korean government has not implemented these recommendations and, as also noted by the KFTC, POSCO's market power remains a significant concern for the future of the Korean industry and steel trade.

## **Brazil**

As in Japan, Brazilian producers enjoy the advantages of a domestic market insulated from real market competition. Although the industry is now mostly privatized and has made progress toward full market reliance, Brazilian antitrust authorities have already found evidence of cooperative pricing practices among Brazilian steel producers once. Another investigation is currently under way. These practices, in combination with various import barriers, reduce domestic competition and create conditions for producers to charge higher prices at home. Brazilian producers are able to leverage the advantage of an insulated home market to sell cheaply abroad.

The depreciation of the Brazilian currency in 1998 gave Brazilian producers the flexibility to cut prices even more in order to retain U.S. export levels in the face of stiff competition, particularly from Russia and Japan. The difference between Brazilian domestic prices and Brazilian export prices to the United States, even after accounting for the depreciation, was the principal reason for the U.S. industry's dumping concerns with Brazil in 1998.

## **Response to the Crisis in the United States**

The U.S. steel industry had been through import crises before, and had undergone a painful restructuring process in the 1980s and early 1990s.

- During that time, the U.S. industry closed dozens of inefficient mills, cut capacity, invested billions of dollars in new technology, raised productivity by more than 300 percent, and eliminated 330,000 jobs.
- At the same time, the U.S. industry invested more than \$7 billion in environmental controls, cutting polluting emissions by 90 percent.

- Led by “mini-mill” companies such as Nucor, the U.S. industry became a world leader in low-cost production.

As a result, the U.S. industry believed that it would be difficult for foreign producers to deliver steel to the U.S. market at a lower cost than U.S. mills.

The 1998 crisis was especially damaging to the U.S. steel industry because the U.S. economy as a whole was doing well. The steel market is highly cyclical, rising and falling with the ups and downs of the economy. When the economy is growing, the industry counts on being profitable to tide it over when times are bad. In the first half of 1998, both prices and demand for steel were up.

By the second half of 1998, steel prices had plummeted even though demand for steel in the U.S. market remained strong. U.S. steel companies and several communities suffered from a wave of low-priced imports (*see box*).

The magnitude of new imports and their detrimental effect upon the U.S. steel industry led to calls from the industry and steel workers for relief. Even Nucor, a highly efficient U.S. mill which had previously refused to join in administrative proceedings against unfair trade practices, felt compelled to support such measures. U.S. steel workers believed they were facing unfair competition. Evaluating the steel crisis and formulating an appropriate response became one of the President’s top economic and trade priorities.

Adopting a multi-pronged approach, the Administration provided strong enforcement of the trade laws in a manner consistent with World Trade Organization (WTO) requirements, while undertaking bilateral efforts and other measures to address the market-distorting practices that contributed to the crisis. Due in part to

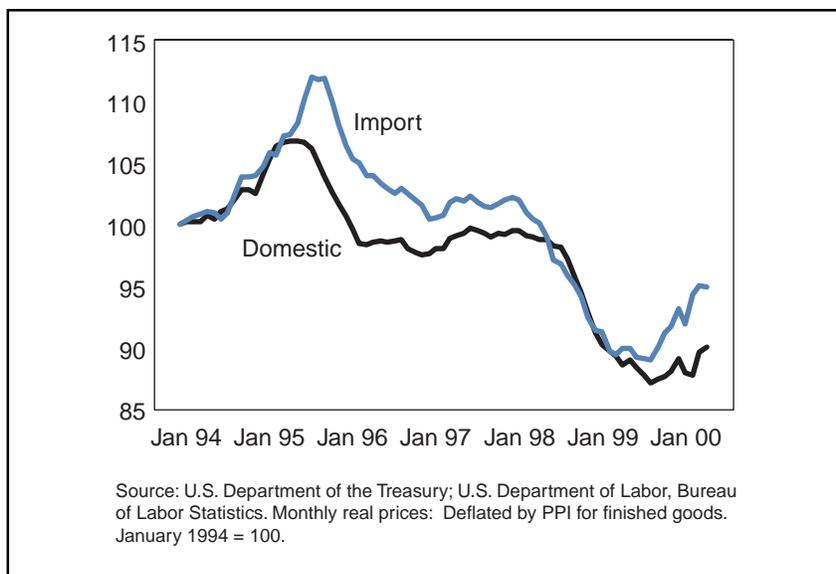
### ***A Company in Bankruptcy, A Community in Crisis***

Riverdale, Illinois, home of Acme Steel, is a bedroom community located in Cook County on the southern border of Chicago. Established in the 1950s, Riverdale’s fortunes rose and fell with the area’s steel-based manufacturing.

In 1993, Acme Steel and the United Steelworkers made a concerted effort to preserve the company. According to company officials, between 1994 and 1996 Acme Steel invested more than \$400 million to modernize its facilities with a state-of-the-art thin slab caster and strip mill. At the same time, Acme’s employees made significant concessions, including layoffs, to ensure that the new facility would be successful. When the crisis hit, start-up was 90 percent complete. However, the sharp drop in prices and the collapse of the company’s orders caused severe liquidity problems, which quickly pushed the company into bankruptcy. As Jim Howell, Acme’s President and CEO said, “The new facility was to be the engine of growth for Acme, but imports put everything on hold.”

Town officials stated that Acme Steel is the economic foundation of Riverdale. Virtually all of Riverdale’s tax revenues come from Acme. There is hardly any sales tax base—almost all retail facilities within the community have closed. Acme provides slightly over \$1 million in direct tax revenues and 70 percent of the utility taxes. Roughly 90 percent of the school budget and 60 percent of the park and recreation budget comes from Acme.

Acme’s misfortunes have meant cutbacks for Riverdale. While the town has been able to maintain police and fire services, almost half of the park staff has been let go and the youth and senior programs have been canceled. The town library has let go one-fifth of its employees and is unable to afford an Internet hook-up for use by the town’s residents, most of whom do not have access to a computer. The school district, which has a dropout rate of over 50 percent and a 48 percent new student turnover rate, has also had to cut back on programs, extracurricular activities, and its computer budget for classroom training.



1-4. Steel Price Index (Jan 1994–May 2000)

these efforts, as well as the efficiency, productivity, and competitiveness of U.S. steel workers and producers, the industry is well on the road to recovery—by early 2000 capacity utilization rates were again above 90 percent (*see Chart 1-2*) and have remained at that level through May. Domestic shipments in the first quarter of 2000 reached record levels, and first quarter 2000 earnings were up for most major steel companies. However, employment has only recently begun to recover and, while prices have improved, they are still below 1997 levels (*Chart 1-4*).<sup>8</sup>

## Reform and Restructuring in Russia, Japan, Korea, and Brazil

As the United States reacted to the impact of the 1998 steel crisis, initial steps were taken in Russia, Japan, Korea, and Brazil to address the significant structural problems that underlay their struggling economies. These restructuring efforts have had mixed success in dealing with market distortions affecting steel trade.

- **Russia's** economy has rebounded since 1998, though it is only just beginning to make up ground lost since the beginning of the transition, and the government has a long way to go in implementing reforms that will sustain growth and investment. Domestic steel consumption is increasing, and is expected to grow if the economy continues its expansion. Barter and the nonpayment of wages and taxes by steel producers have declined sharply since 1998 and some input prices have been raised. While the Russian government's 1999 development strategy for the steel industry does not directly address many of the steel industry's structural problems, Russia's new leadership has made a public commitment to reform, and is actively encouraging cash payment of wages, taxes, and suppliers and discouraging the use of distortive barter transactions.
- In **Japan**, over the past year, the steel industry has experienced several events that ultimately could stimulate competition among major steel producers. These include (1) pressure from major automotive customers for more competitive domestic market pricing, due, in part, to the significant foreign ownership of major automotive producers; and (2) a reported increase in competition from industry leader Nippon Steel vis-à-vis the other integrated steel firms. In addition, the banking sector is undergoing significant reform. It is too early to judge whether these efforts will increase competition within the Japanese steel industry.
- **Korea** has made substantial efforts to reform its financial and industrial sectors. These efforts extend to virtually every facet of Korea's economy, including the steel industry; however, it would be premature to gauge their effectiveness. Furthermore, the Korean government's delays in implementing its stated objective of fully privatizing POSCO continue to raise concerns.
- **Brazil** has also taken positive steps toward structural reform, such as active enforcement of its antitrust laws. However, the Brazilian government's recent investigation into allegations of cartel-like behavior among certain steel producers raises a concern that industry collusion continues.

## New Players in the Global Steel Market

Given the problems with integrating Russia into the global steel market in recent years, attention has been focused on other possible new players. In particular, the steel industries of China, Ukraine, and India have been cited as raising the potential for market distortion given their size and the aid they continue to receive from their respective governments.

- Although **China** is the world's largest crude steel producer, its export potential may not be as great as its overall production might suggest. Most Chinese steel producers are not competitive internationally. However, the government has set out to create a few industry leaders which could become significant exporters if the Chinese market continues to slow or if they choose to pursue exporting for other reasons. Importantly, if China joins the WTO, the United States will have new mechanisms to address trade concerns with China, including a special safeguard mechanism for import surges and increased disciplines for subsidies.
- **Ukraine's** near-term potential as a major steel exporter is significant. While Ukraine was not a major exporter to the United States during the 1998 steel crisis, large volumes of steel were exported to the United States prior to and since 1998. The government's continued involvement in most of Ukraine's steel companies raises a significant concern about the potential for unfairly traded steel in international markets.
- **India's** near-term export potential is substantial. India's steel production capacity expanded rapidly over the past few years. The decline in domestic demand and active encouragement by the government has prompted Indian steel producers to turn increasingly to exports. Here too, there is concern about the possibility for unfairly traded exports because of continued government assistance.

## Avoiding Future Crises

The economic revival of many Asian economies and the continued strength of the U.S. market have led to a rebounding of global steel demand. This is a key component to relieving excessive import pressures in the U.S. steel market. However, this short-term trend does not reduce the need to address the long-term market distortions of the global steel industry. If long-term factors are not addressed, then unfair trade practices and the bilateral trade frictions they elicit are likely to occur again.

The Commerce Department and the U.S. Trade Representative (USTR), in consultation with other agencies, have developed a strategy that builds on the President's Steel Action Program to make the trade remedy process more timely and effective, and to address market-distorting practices that contribute to overcapacity and instability in the global steel industry. Major elements of the strategy include the following:

- **Early warning of import surges and of changes in industry conditions.** Commerce will continue the early release of steel trade statistics, track and publish key industry statistics, such as steel shipments and capacity utilization, and monitor global steel production and consumption. To ensure that the domestic steel industry and workers are aware of any changing conditions, Commerce will make the early warning information publicly available on the Internet and will send it electronically to representatives of producers and their workers.
- **Faster relief for industries, workers, and communities when import surges occur.** Commerce will ensure fair trade laws are responsive to crisis situations by expediting antidumping investigations and making early critical circumstances determinations. The Administration will establish an interagency rapid response team to help communities and workers hit by unfair trade and ensure that communities are aware of all federal resources that are available to them.
- **Steps to address instability in global steel markets.** Commerce and USTR will intensify their efforts to determine whether foreign practices affecting international trade in steel are inconsistent with WTO agreements and, where appropriate, will consider pursuing WTO dispute settlement. In addition, the U.S. government will address structural problems through continued, focused bilateral engagement with Russia, Japan, Korea, and Brazil and through multilateral forums, such as the Organization for

Economic Cooperation and Development Steel Committee. Where our concerns are not resolved through bilateral and multilateral discussions, the United States government will determine whether additional action is warranted. Commerce's Subsidies Enforcement Office will enhance its efforts to determine whether any foreign activities constitute actionable subsidies under the WTO Subsidies Agreement. This initiative will also include new players like China, Ukraine, and India.

- **Reinvigorating the international steel policy agenda.** The Administration will take steps to make the OECD Steel Committee a better forum for real progress, including increasing the level of participation in OECD Steel Committee meetings and reinvigorating its agenda. The Administration will seek a moratorium on multilateral development bank lending that substantially increases steel production.

By taking meaningful steps to deal with structural problems now, the United States and its trading partners can help to avoid the cycle of import surges and trade actions that have characterized steel trade for the past thirty years. These efforts will also benefit the global steel market and the economies of the countries involved by ensuring open and fair markets that will lead to increased competitiveness and productivity.

## CHAPTER 2

# The U.S. Steel Import Crisis

### Introduction

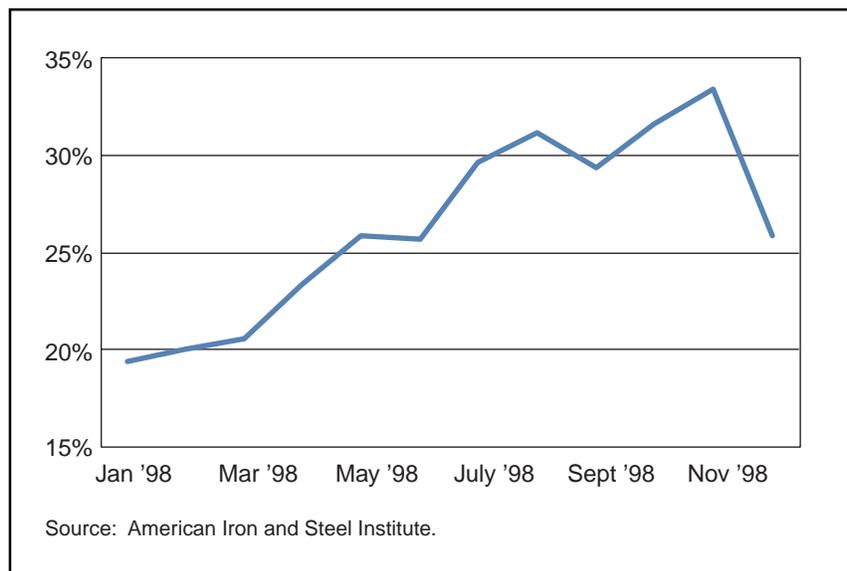
The U.S. steel crisis of 1998 began to take hold in the middle of the year and then came on quickly. In the last six months of the year, import penetration reached record levels, domestic shipments fell 11 percent and capacity utilization rates dropped dramatically (*Charts 2-1, 2-2*).<sup>1</sup> The speed and severity of the crisis, and the abrupt deterioration of the U.S. industry's fortunes, caused steel companies and workers to fear that they might soon be facing one of the worst crises to hit the industry in recent years.

Imports were killing us. All of a sudden, we went from three shifts down to two—you knew what was coming. Each day I'd look and see my order sheets dropping. Then you start looking to see if your name's on the list, asking you to report to the front office. One day it's up there, and your job is gone.

Harry Thuedaus, steel worker at Acme Steel, laid off after seven years with Acme

The rapid growth in imports coupled with the drop in prices hit many U.S. steel companies hard. During the second half of 1998, a number of U.S. companies saw their sales drop sharply.

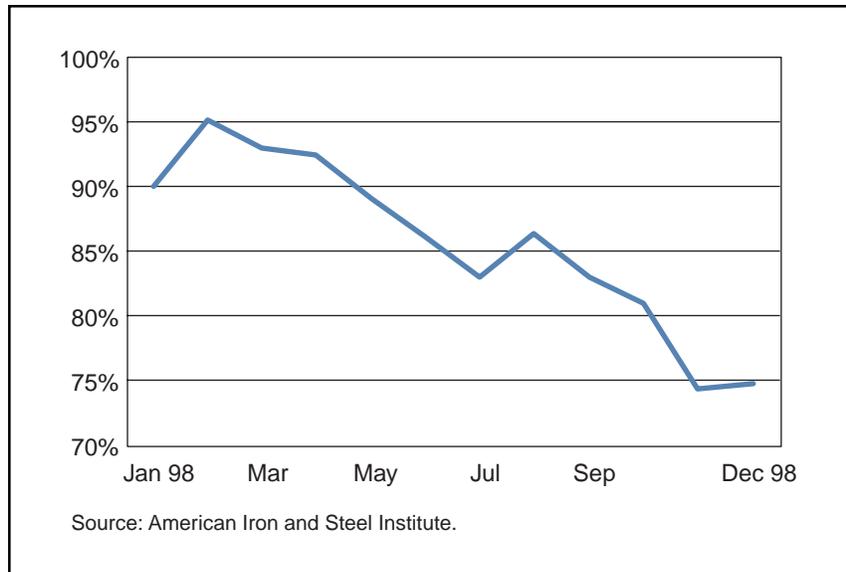
- North Star BHP's order books dropped from 227,000 metric tons (MT) to less than 55,000 MT in a period of less than six weeks.<sup>2</sup>
- In September 1998, Wheeling-Pittsburgh saw 143,000 MT vanish from its order books in a ten-day period.<sup>3</sup>
- From November 1998 to February 1999, Northwestern Steel's business fell off by 40 percent. According to Fred Rocchio, president and CEO, the impact of the import surge became evident in late 1998 when



2-1. Import Penetration: Finished Steel

orders for beams and channels “just up and died.” Even after the company drastically slashed prices to match those of imports, it was forced to close its wire and wire rod operations and lay off 320 steel workers.<sup>4</sup>

- Acme Steel saw 63 percent of its order book disappear in two months—to a level below the practical running capacity of the blast furnaces.<sup>5</sup>
- Six firms—Acme Steel, Geneva Steel, Gulf States Steel, Laclede Steel, Qualitech Steel, and World Class Processing—were driven into bankruptcy, typically citing the increase in steel imports and the fall in prices as one of the reasons they filed for protection under Chapter 11.



**2-2. Monthly Capacity Utilization Rates**

Thousands of steel employees were laid off in 1998 and 1999.<sup>6</sup> Throughout the fall of 1998, steel firms shut down lines and cut back their workforces.

### *Steel Users' Views*

Steel-consuming companies have noted the benefits of steel imports to the U.S. economy. They argue that steel imports can improve the competitiveness and profitability of steel-consuming industries. They also argue that trade cases may result in higher input costs or supply disruptions for their industries. In testimony before the Senate Finance Committee, J. B. Porter, Chief Procurement Officer for Caterpillar (one of America's largest importers of steel) stated that lower-priced steel imports benefit the metal fabrication, transportation, industrial machinery and construction industries, which depend upon steel as an essential input, and, which combined, employ many more workers than the steel industry.

As a net importer of steel, the United States depends upon foreign steel to supply part of its needs. Moreover, the U.S. steel industry depends upon semifinished steel imports to supplement its own production. In 1999, more than 7 million MT of semifinished steel was imported for use by U.S. steel companies to convert into finished steel products.

- U.S. Steel's Fairless Works laid off 300 of its 850 workers the day before Thanksgiving.<sup>7</sup>
- In December, Bethlehem Steel laid off 650 employees, while Northwestern Steel laid off 250 employees.<sup>8</sup>
- At Weirton Steel, 747 workers spent their holidays in the unemployment line.<sup>9</sup>

The situation in 1998 was different from previous downturns. The U.S. industry was not in the midst of a recession as it had been in the early 1980s. Following painful restructuring, a more efficient industry emerged in the 1990s, making the United States a competitive and relatively low-cost producer of steel products. Nor was the U.S. steel market weak (*see box, this page*).<sup>10</sup> Demand was up, and 1998 had been predicted to be a banner year for U.S. industry. Instead, thousands of steel workers lost their jobs (*see box, next page*).<sup>11</sup>

The crisis was triggered by economic downturns abroad. The Asian financial crisis began with Thailand in mid-1997, and spread throughout Asia, bringing with it the worst economic downturn to hit the region in thirty years. As

### *The Steel Workers' Perspective on the 1998 Crisis*

There were several reasons U.S. steel workers reacted so strongly to the 1998 crisis. First, steel workers believed that they had paid their dues. U.S. steel companies and workers had gone through fifteen years of painful restructuring that had resulted in a much stronger and leaner U.S. steel industry. But increased productivity came at a heavy cost. With steel shipments remaining level, more efficient steel-making resulted in a dramatic drop in employment. Between 1979 and 1994, total steel industry employment fell 58 percent, a loss of more than 330,000 jobs.

Second, at a time when they believed that they should have been reaping the benefits of a strong U.S. market, steel workers were instead facing layoffs, shorter shifts and reductions in pay. The U.S. steel market was not in the throes of a cyclical downturn—demand in the U.S. market increased in 1998, up six percent compared to 1997, a year in which demand was already strong. However, with so much foreign supply entering the U.S. market, prices declined in the face of increased U.S. demand.

Finally, steel workers believed that maintaining a strong domestic steel industry was important to the nation. As Jerry Bugg, President of USW, Local 1053 said, "Steel is a critical industry for the United States—critical for the economy, critical for our defense. Cut the basement out of the house and it won't be long before you'll have the roof down on your head."

economies collapsed, demand for steel in Asia quickly dried up. Asian steel producers and traditional exporters to the region, such as Russia and Brazil, needed to find other markets and turned to the United States and Europe, where demand was still strong. The situation was further exacerbated as the Asian financial crisis went global, spreading to Russia and Brazil by mid-1998.

One would have expected U.S. imports to increase as a result of these financial crises. Few, however, anticipated the magnitude of the increase in imports that took place in 1998. A large amount of steel was diverted to the United States from other markets as imports increased 33 percent over 1997 (which had been a record year for U.S. imports).<sup>12</sup> The largest increases came from Japan, Korea, and Russia. Imports from these three countries alone accounted for 76 percent of the 9.4 million MT increase in total U.S. steel imports.

The 1998 steel crisis was not simply an issue of increased volume. Imported steel was coming in at extremely low prices in many instances, assisted by the declining value of foreign currencies that buoyed dollar-denominated export revenue in home currency units. Led by Japan and Russia, and often followed by Korea and Brazil, it appeared as if foreign producers were trying to beat each other in a race to the bottom.<sup>13</sup> As Nicholas Tolerico, executive vice president of Thyssen Inc. (Detroit), the U.S. importing and processing division of Thyssen AG (Germany), noted during the crisis, "I've seen fliers advertising Japanese-quality steel at Russian prices. There's only one place for the Russians to go: even lower."<sup>14</sup>

It's bad enough to lose money when the market is down. But we were at the height of the market from the demand side, so that all this happening [the lost orders, sharp price declines, subsequent financial losses and layoffs] is doubly unfortunate when you consider you're in a cyclical market.

Fred Rocchio, President  
Northwestern Steel

By the second half of 1998, steel prices in the U.S. market had plummeted, falling to levels well below where U.S. companies could price profitably. Strikingly, this occurred while demand for steel in the U.S. market was booming. Although the General Motors strike in mid-1998 caused some uncertainty just as increasing imports began to hit U.S. soil, overall demand was strong in 1998 and remained strong in 1999. Nevertheless, U.S. steel companies, which had been profitable in 1997 and early 1998, faced significant losses by early 1999.

### *The Economics of the Steel Industry*

The steel industry is characterized by high fixed costs and relatively inelastic demand, particularly in the short term. Because a large proportion of steel mill costs are fixed, producers have a strong incentive to maintain or increase capacity utilization. In addition to large capital investments, many of the major costs associated with the operation of a facility are fixed (*e.g.*, depreciation, costs associated with starting up blast furnaces). These factors put pressure on companies to keep mills running even when market signals may be indicating the need for production cutbacks, the temporary idling of facilities or even the elimination of capacity. Once a mill is idled, it is very costly to restart production. Thus, mills may continue running even when prices fall below average total costs, or even below marginal costs. While output can be reduced, each reduction raises the cost per ton of steel produced.

Construction of a large integrated steel mill runs into the billions of dollars. Even for a much smaller mini-mill, construction and equipment costs run into hundreds of millions of dollars, especially since the advent of the hot-rolled coil flat-rolling mini-mills with downstream processing (*e.g.*, cold-rolling and galvanizing lines), and upstream material facilities (*e.g.*, direct-reduced iron production). Increasingly, in the United States and other industrialized countries, labor is a fixed cost as well, due to substantial legacy costs relating to former employees, and labor contracts that have emphasized job security over wage and benefit hikes.

With respect to demand, a number of factors limit the elasticity of steel demand in the short term. These include automotive model-year plans and, more generally, material processing constraints associated with end user equipment. In the short term, manufacturers cannot easily switch to steel from other inputs, even if steel becomes more attractive due to falling prices. For example, steel frame housing construction can be economical during periods when lumber prices are high and steel prices are low. However, given the dominance of wood frame construction and the price volatility of both commodities, builders may be unwilling to invest in the special equipment and training needed to make the switch.

These cost and demand realities of the steel business lead to situations where sudden sharp declines in demand put severe pressure on market prices for steel products as producers fight to maintain or gain market share. When demand slumps, companies are reluctant to incur the costs associated with idling and restarting mills, and so may be willing to reduce prices to marginal costs in order to maintain capacity utilization. Added to these costs are also long-standing structural problems, such as significant overcapacity in the global steel industry, government assistance to maintain older capacity, barriers to imports, anticompetitive practices and, in some countries, the direct or indirect involvement of the government in the steel industry. The result is the suppression of prices during times of crisis and even over the long term. Such price suppression contributes to the generally low levels of return on investment that steel analysts have noted and that steel industry figures have complained about.

The increasing globalization of the steel industry has meant that firms must adapt to demand conditions in other markets. In open steel markets, such as the United States, steel companies find themselves facing pressures caused by collapsing markets on the other side of the world, pressures which may quickly undercut strong or healthy market conditions at home. Such pressures may be further exacerbated if structural conditions in other countries insulate those markets from the effects of the economic conditions of the global steel market, and help explain the recurring concerns over trade practices in the steel industry.

Given the strong demand in the U.S. market, U.S. steel companies expected to be able to build a cushion for the lean years that tend to follow in a cyclical industry like steel. Instead, they were losing money on sale after sale. As 1998 came to a close, what started as a promising year for the U.S. steel industry ended with the industry in crisis.

## 1997: A Cloud Behind Every Silver Lining

In 1997, the financial health of the U.S. steel industry, the strong U.S. market, and the forecast of more good times to come masked problems in the global steel industry. Even as late as June 1998, the debate was still strong over whether the financial crisis in Asia would have a severe impact on the U.S. steel market. While some correctly predicted that economic downturn in Asia would lead to a surge in steel imports, others predicted a drop in the market share of imports in 1998 due to canceled expansion plans and export financing difficulties of producers in Asia.<sup>15</sup>

The forecasts of import declines seemed to be borne out by the trend in imports in early 1998. March 1998 import statistics, released in May, showed that imports fell in the first quarter compared to the same period in 1997, even as demand continued to rise. The first indications of an impending import surge did not appear until the release of April statistics in late June 1998. Randy Cousins, an analyst with Nesbitt Burns, commented at the time, “Consider that Asia has thrown a boulder into the world steel pond and it is beginning to ripple out.”<sup>16</sup>

### Strong U.S. Market in 1997 Results in a Good Year for the U.S. Industry

Nineteen ninety-seven was a good year for the U.S. steel industry, in fact, one of the better years for the industry during the 1990s. The healthy U.S. economy sparked increases in sales of automobiles and appliances—both heavy users of steel, particularly flat-rolled products. The economy also spawned a construction boom which, coupled with major infrastructure projects such as highway and bridge repair, led to strong markets for long products such as heavy structurals and rebar. Demand for steel products had increased steadily in the mid-1990s. 1997 was no exception. U.S. apparent consumption for total steel mill products increased almost 5 percent compared to 1996, an increase of approximately 5.4 million MT. U.S. steel mills were in high gear with capacity utilization above 85 percent throughout 1997 even though overall U.S. capacity had grown the previous three years.

Imports rose in 1997 but were largely absorbed by increasing demand. Steel imports in 1997 reached a record 28 million MT, an increase of approximately 7 percent over 1996. Yet the market share of imports increased only a slight 0.5 percent over 1996.

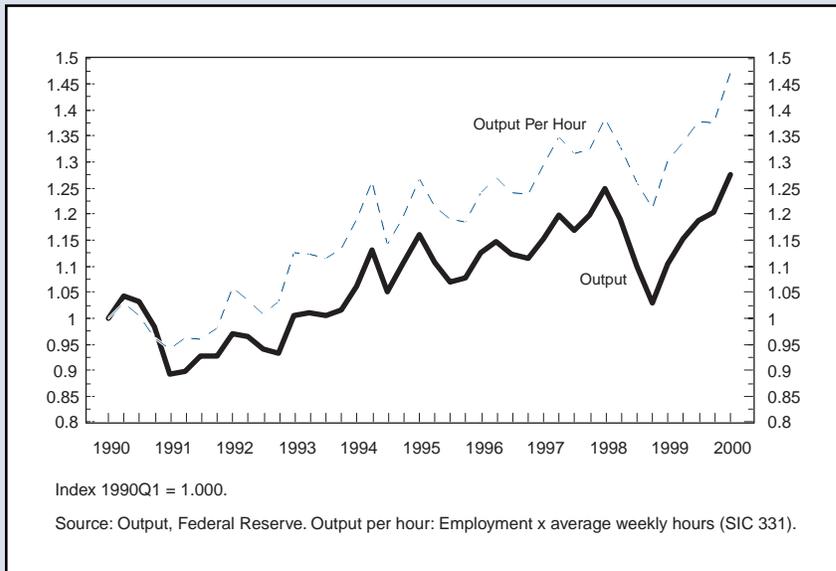
Prices were strong in 1997 with price increases in most major product lines compared to the previous year. For example, as reported by *Purchasing Magazine*:<sup>17</sup>

- Spot prices for carbon hot-rolled sheet rose 20 percent from about \$331 per MT in January 1996 to \$397 in February 1997 and then held steady through May 1997 before tapering off somewhat toward the end of 1997.<sup>18</sup>
- Similarly, spot prices for cold-rolled sheet rose 16 percent from \$474 per MT in January 1996 to \$551 in February 1997, holding steady at this price through May 1997.
- While prices for wide flange beams (a heavy structural product) initially declined in 1996 and early 1997, prices began to recover in the summer of 1997, rising 7 percent in the fall of 1997 to \$424 per MT and leveling off until the end of June 1998.

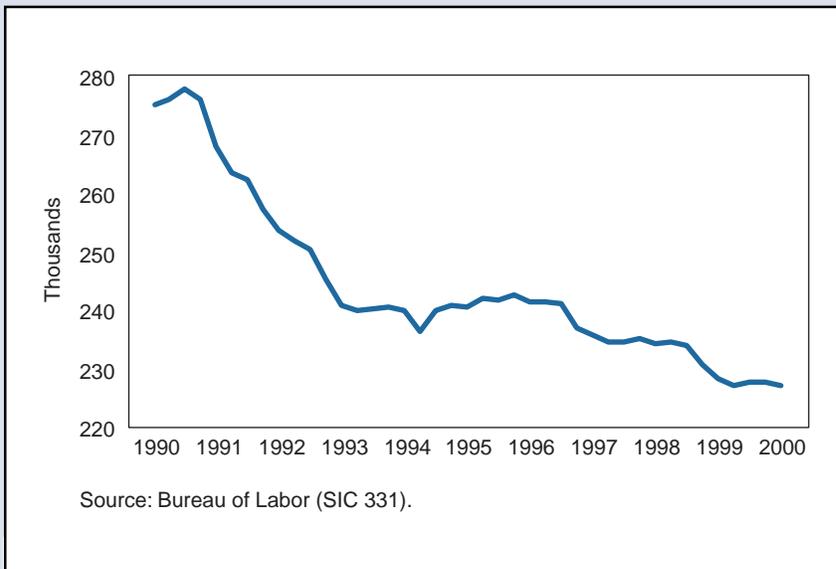
Given continued strong demand and higher prices, steel companies experienced fairly strong sales, net income and operating profits in 1997 and through the first half of 1998. Reflecting the financial health of the industry, steel industry employment remained fairly steady throughout 1997 and into early 1998, abating, at least temporarily, the long-term downward trend in steel employment<sup>19</sup> (*see box, next page*).<sup>20</sup>

## *Productivity and Employment in the U.S. Steel Industry*

Throughout the 1980s and 1990s, the U.S. steel industry underwent massive restructuring and reorganization, investing well over \$50 billion in steel plant modernization, according to an AISI estimate. The restructuring greatly increased productivity, as obsolete and inefficient mills were shut down, aging lines updated and newer, more productive plants brought on line. As steel companies became more efficient, the actual tonnage of steel shipped remained fairly steady, contributing to a decline in employment.



**2-3. Output and Productivity, Steel Mill Products**



**2-4. Employment, Steel Mill Products**

Two technological trends contributed to the increase in productivity and decline in employment. First, raw steel production shifted from the relatively labor intensive and less efficient open hearth furnaces to electric furnaces. Second, the percentage of total U.S. raw steel production continuously cast increased from 65 percent to 96 percent between 1989 and 1998. Recent developments in thin slab casting by Nucor Corp. and other mini-mills have pushed productivity in flat-rolled steel production up even further.

The industry also saw a significant shift in demand for steel in the United States in the 1980s and early 1990s as the demand for smaller, lighter automobiles and the growing use of steel substitutes such as aluminum and plastic took hold. This downward trend reversed prior to the 1998 crisis. Steel demand, as measured by apparent consumption, had been strong since the mid-1990s, and in 1998, demand increased by 6 percent compared to 1997. But the recent increases in steel demand did not offset the decades-long decline in steel employment.

These productivity increases and shifts in demand over the past two decades have resulted in a significant decline in employment in the steel industry. In the fifteen years between 1979 and 1994, total steel industry employment fell 58 percent, from 570,500 to 239,200, a loss of 331,300 jobs. However, by the mid-1990s, the major restructuring efforts were complete, and the sharp drops in employment leveled off.

While finished steel product shipments, as of the late 1990s, were down only slightly from the peaks of the early 1970s, employment in the industry had fallen by more than 60 percent. According to AISI, man-hours per ton of finished steel decreased from about ten in the early 1980s to well below four by the late 1990s.

With few inefficient producers left, a very lean and highly productive U.S. steel industry emerged. It is in this context that the industry saw an abrupt decline in employment in 1998 when thousands of steel workers were laid off at the end of the year.

## Storm Clouds on the Horizon

### Financial Crisis in Asia

The financial crisis in Asia began in mid-1997 in Thailand and quickly spread to Malaysia, Indonesia, the Philippines and Korea. In country after country, currencies collapsed and stock prices plummeted despite efforts at intervention. During the last half of 1997, the Thai baht lost 49 percent of its value against the dollar, while the Malaysian ringgit, Indonesian rupiah, Philippine peso, and Korean won lost 35 percent, 44 percent, 34 percent, and 48 percent of their values, respectively.<sup>21</sup> In the same six-month period, Thai stocks fell 29 percent while stocks in Malaysia, Indonesia, the Philippines, and Korea fell 45 percent, 45 percent, 34 percent, and 50 percent, respectively.<sup>22</sup> Banks began to fail due to over lending and the high costs incurred through dollar denominated debt payments which could not be met after very large currency devaluations.

The crisis was the worst economic downturn in the region in thirty years. Three countries—Thailand, Indonesia, and Korea—sought International Monetary Fund (IMF) assistance. In August 1997, Thailand agreed to an IMF Program that included a \$17 billion package of loans, provided by the IMF, World Bank, Asian Development Bank, and selected governments. In October, Indonesia agreed to an IMF loan that included \$40 billion in multilateral and bilateral support. In December, Korea agreed to \$57 billion in multilateral and bilateral support. The economic policies pursued under the IMF-supported program, combined with emergency financial support, helped these countries begin the slow and painful process of economic recovery.

In the first year of the crisis, an additional 40 to 50 million people in the region fell below the poverty line, not only in Indonesia and the Philippines, but also in Korea, Thailand and Malaysia, countries that had made considerable strides in alleviating poverty.<sup>23</sup> Millions of children in the region left school as a result of the crisis to either work as laborers or beg on the streets.<sup>24</sup> Fears of widespread hunger and malnutrition in Indonesia arose as government officials in 1998 estimated that 100 million Indonesians, close to half the nation's population, would be unable to afford food and basic necessities by year's end.<sup>25</sup>

In the years prior to the financial crisis, the massive amount of available capital in Asia encouraged unsound lending practices, which were exacerbated by government interference in the financial sector, crony capitalism, and corruption.<sup>26</sup> Foreign lenders had been rushing in to take advantage of new opportunities in a growing region. For example, total foreign debt in Korea almost tripled between 1992 and 1997, increasing from roughly \$43 billion at the end of 1992 to \$121 billion at the end of 1997.<sup>27</sup>

This “easy money” led to extensive borrowing for risky investments in real estate and industrial capacity, especially in the automobile, petrochemical, semiconductor and steel sectors. Companies became highly leveraged. As the *1999 Economic Report of the President* concluded, “Borrowers that should have been foreclosed upon, or at least cut off from further lending, were allowed to continue borrowing, which increased their losses and those of their banks.”<sup>28</sup> In Korea, the average debt to equity ratio for the top thirty industrial conglomerates (or chaebols) in 1996 was 387 percent, ranging from 250 percent to 8,500 percent. By 1997, this average rose to 519 percent.<sup>29</sup> In contrast, the average ratio in the United States was 70 percent.<sup>30</sup>

Easy credit led to substantial overcapacity in the manufacturing sector before the financial crisis began. By 1997, uncompetitive investments in capacity expansion projects resulted in severe gluts in regional steel, semiconductor, petrochemical, and automobile markets.<sup>31</sup>

- Thailand had estimated excess capacity of 192 percent in the automotive industry, 195 percent in the petrochemical industry, and 150 percent in the steel bar industry.<sup>32</sup>
- In Korea, according to the Organization for Economic Cooperation and Development (OECD), an investment-led boom in 1994 and 1995 gave way in 1996 to falling prices in several important export sectors. As stated by the OECD, “There is little doubt that over-capacity in key industries was a major structural weakness of the Korean economy, and that the excessive private debt which contributed to its build-up was a factor in rendering the economy vulnerable to the crisis.”<sup>33</sup>
- The *1999 Economic Report of the President* also discussed the relationship between the region’s financial practices and overcapacity. “It appears, for example, that some Asian firms, unchecked by external market discipline, developed excess capacity in industries such as steel and electronics. Many Asian economies are currently struggling to overcome the adverse real consequences of these misguided financial decisions.”<sup>34</sup>

Large shares of bank lending for real estate fueled a construction boom, particularly in office buildings and luxury condominiums.<sup>35</sup> An analysis of Bangkok in late 1994 noted that 62 percent of the 4 million square meters of office space had been added since 1992. The analysis predicted another 3 million square meters to be built by the end of 1997, despite the fact that the vacancy rate at the time was already 20 percent.<sup>36</sup>

The financial systems that had helped drive high growth rates during the 1990s were themselves highly dependent on sustaining those growth rates. As time went on, abundant credit led to more and more speculative ventures or noncompetitive expansion projects.<sup>37</sup> Companies with heavy debt loads became ever more vulnerable to even slight economic downturns.<sup>38</sup> The high proportion of foreign loans left them vulnerable to currency devaluations.

As returns on investment dwindled and growth rates in the region declined, companies were unable to meet their loan payments. In early 1997, major bankruptcies revealed the extent of the underlying structural problems in the corporate and financial sectors behind the miracle growth in the region and provided a glimpse of the problems to come.<sup>39</sup> As weaknesses of the financial systems in each country were exposed, domestic and foreign investors began leaving, resulting in capital flight and extreme pressure on these countries’ currencies. Panic set off a spiral of currency devaluations, stock crashes and bankruptcies that rippled throughout the region. By the end of 1997, what might have been a series of isolated national economic downturns quickly turned into a regional crisis poised to spread throughout the global economy.

### **Financial Crises in Russia and Brazil**

**Russia.** By early 1998, the Asian financial crisis began to have an impact on Russia by driving world oil and gas prices down. Because these sectors had accounted for 43 percent of Russian exports, Russia’s export earnings fell, putting pressures on currency reserves. Russian steel exports to Asia also began to fall, putting further pressure on foreign currency revenues. The Asian financial crisis undermined investor confidence in emerging markets including Russia and led to a reduction in foreign and domestic investment.

In mid-1998, financial crisis hit Russia. The long-term inability of the Russian government to balance its budget caused it to respond by issuing an ever-increasing amount of government bonds and by not paying its workers, soldiers, or pensioners. More than 40 percent of the budget expenditures in August 1998, for example, were earmarked for debt service.<sup>40</sup> Interest rates on short-term bonds climbed to 200 percent as the Russian government tried to maintain capital inflows. Eventually, the lack of confidence in the government's ability to repay its debt caused investors to pull out of the bond market. With no money coming in, the Russian government could no longer support its debt. On August 17, 1998, the government announced a ninety-day moratorium on external debt repayments and a de facto devaluation of the ruble. Within days, the ruble lost 30 percent of its value. These events had serious economic and political ramifications for the country and its struggle toward a market economy. By mid-October, the Russian stock market was down 88 percent from its January 1, 1998, level, and the ruble had lost two-thirds of its value.<sup>41</sup> When the ruble finally stabilized in early 1999, it had lost 74 percent of its value.<sup>42</sup>

**Brazil.** A financial crisis also hit Latin America, precipitating regional economic declines, sharp drops in commodity prices, and distortions in global trading relationships. Losses from the Russian stock market crash forced many investors to pull money out of Brazil to meet margin and other calls for their assets. After the Asian and Russian debacles, investor perception was that the South American economies, particularly Brazil, would not be spared.

When the Brazilian real came under attack in mid-1998, the Brazilian government raised short-term interest rates to almost 50 percent in an attempt to stall or prevent the currency's collapse. Many market analysts believed that the steps taken by the Brazilian government undermined the confidence of foreign investors and led to the real's dramatic devaluation in early 1999.

With major steel-producing countries such as Korea, Russia, and Brazil locked in a financial crisis and with Japan, the world's third largest steel-producing country, entering its eighth year of economic downturn, the stage was set for a global steel crisis.

### **Financial Crises Trigger the U.S. Steel Crisis**

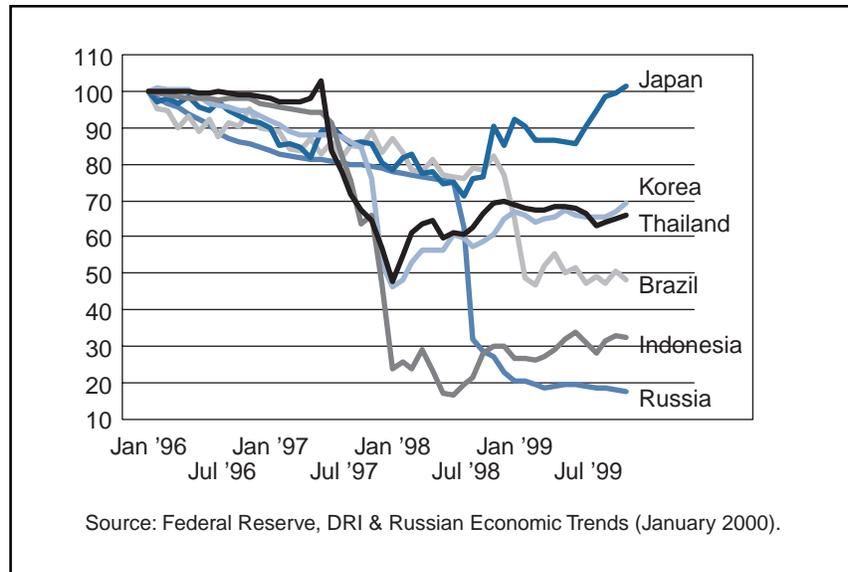
Changes in three short-term variables in 1997 to 1998—a reduction in Asian steel demand, a fall in Asian currency values, and an increase in U.S. steel demand—are key to understanding what triggered the U.S. steel crisis. While in theory these variables could have been either reinforcing or offsetting, in 1998 they individually and collectively contributed to an increase in U.S. steel import volumes.

**Effects on Asian Steel Producers.** The Asian financial crisis severely curtailed economic activity in many Asian countries, depressing demand for steel in the construction and manufacturing sectors. The crisis was particularly severe given its suddenness and magnitude, due in large part to the fact that it came at a time of robust and sustained economic growth and high expectations. Asian steel producers faced not only shrinking domestic markets, but shrinking regional export markets as well, and were left to find new buyers for their steel products.

Currency devaluations made Asian steel producers' products more competitive from a price standpoint, but not in the same markets and not necessarily to the same degree. For example, between January 1996 and the middle of 1998, the yen, the won, the rupiah and the baht all fell in value, but at different rates. In dollar terms, the Indonesian rupiah fell the most (83 percent), followed by the Korean won (44 percent), the Thai baht (40 percent), and the Japanese yen (26 percent) (*Chart 2-5*).<sup>43</sup>

**Effects on Russian and Brazilian Producers.** Asia was a major export market for both Brazil and Russia. When Asian steel markets contracted, Brazilian and Russian steel producers, like their Asian counterparts, were left to find new buyers for their steel products.

Russian and Brazilian steel producers initially faced the additional problem of a loss of price competitiveness vis-à-vis their Asian competitors as Asian currencies fell against the ruble and the real. Their competitive position improved with depreciations of both the ruble and the real in the second half of 1998, which came at a time when many of the Asian currencies had already begun to rebound. Although the depreciation of the ruble came too late in 1998 to be a factor in U.S. steel crisis, the ruble and real depreciations gave Russian and Brazilian steel exporters a significant price advantage in virtually all steel markets in which they competed, both in Asia and in the United States.



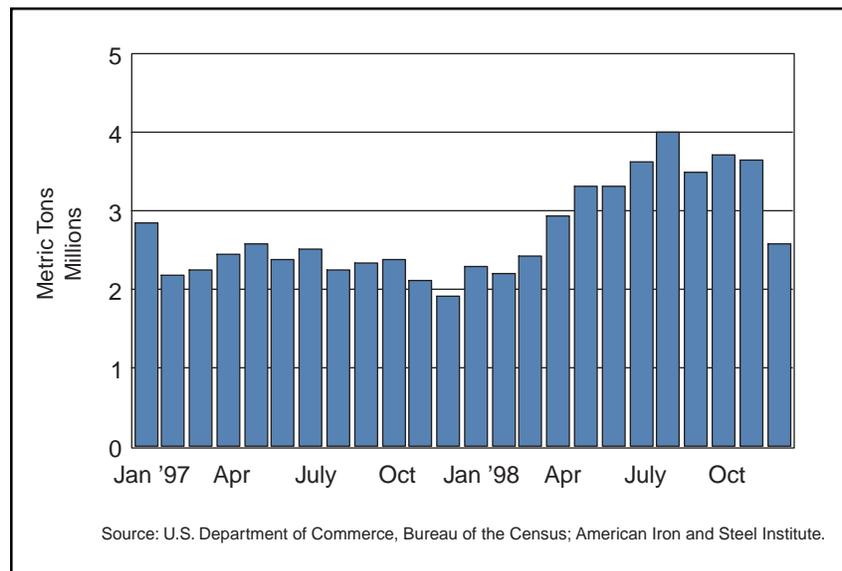
**2-5. Index of Currency Values: 1996–1999**  
(Based on Exchange Rates, January 1996=100)

In light of the initial devaluation of Asian currencies, steel producers in Russia and Brazil likely saw rising U.S. demand and the strong U.S. steel market as their best opportunity.

## 1998: U.S. Industry in Crisis

### Up Sharply in April, Imports Climb Steadily Throughout the Year

Beginning in April 1998, steel imports began to rise dramatically, up 21 percent from both March 1998 and the previous April. By the end of 1998, steel imports had increased to almost 38 million MT, a 33 percent increase over the 28 million MT imported in 1997, the previous record year for imports (*Charts 2-6, 2-7*).



**2-6. U.S. Imports of Steel Mill Products**

Foreign producers have said that they were simply meeting the rising demand in the United States during 1998, demand that they claimed U.S. steel mills were unwilling or unable to supply. General Motors has noted that starting in late 1997, parts suppliers were reporting that certain U.S. steel makers were placing customers on allocation and encouraging them to look elsewhere for additional product.<sup>44</sup> Similar

concerns regarding purchase allocations and potential shortages were raised with respect to the structurals market.<sup>45</sup>

Strong U.S. demand certainly made for an attractive U.S. market. However, the increase in steel imports into the United States far outstripped the 6 percent increase in U.S. demand. Steel imports increased by 9.40 million MT, compared to an increase of 6.75 million MT in U.S. steel demand—an overhang of almost 40 percent. This pattern held true for individual product categories as well. Demand for

hot-rolled steel in 1998 grew by 3.5 million MT, while imports increased by 4.6 million MT. Demand for structural steel in 1998 increased by 1.2 million MT, while imports increased by 1.6 million MT. With respect to import levels, Father William Hogan, director of Fordham University's Industrial Economics Research Institute and a noted industry expert, stated:

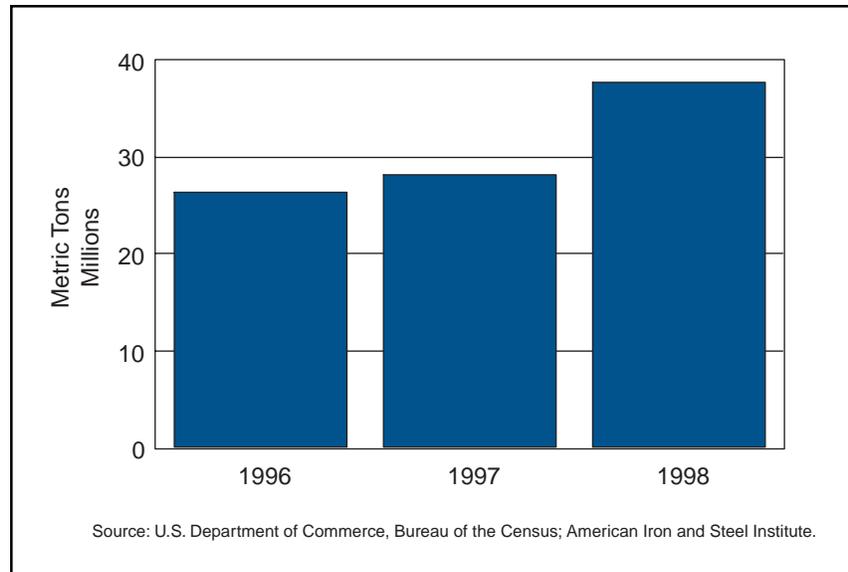
I cannot conceive of any situation where the United States would need 20 to 30 million net tons of finished steel imports. From a peak demand standpoint, the United States would need only about 10 to 15 million net tons of imports, given current U.S. finished steel product capacity.<sup>46</sup>

Because the U.S. market could not absorb the import oversupply, U.S. steel mill inventories rose approximately 5 percent by December 1998 compared to pre-crisis levels in autumn 1997. By mid-1999, inventories were up 11 percent compared to autumn 1997 levels.<sup>47</sup> Service center inventories rose approximately 20 percent from the second half of 1997 to the end of 1998—from an average of roughly 6.5 million MT to almost 8 million MT.<sup>48</sup>

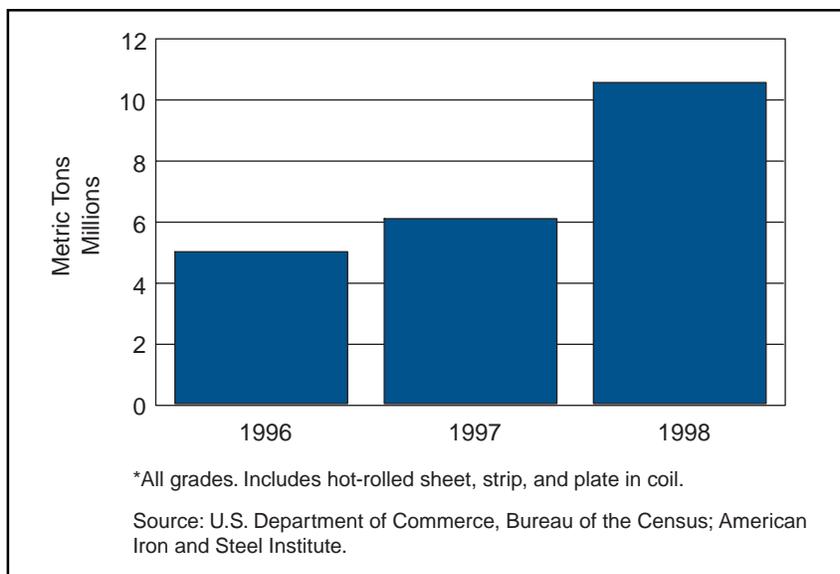
Noting concerns about steel price declines in the face of strong U.S. demand, as measured by the increase in U.S. apparent consumption to about 130 million MT in 1998, James Collins, former president and now policy advisor to the Steel Manufacturers Association, said:

In that phrase “apparent consumption,” the key word is “apparent.” For we know the U.S. market will not have consumed 130 million tons of steel in 1998. How many excess tons are sitting on docks, in bonded warehouses, or in the inventories of service-center distributors? Many are guessing that the overhang on the market is at least 5 million tons of finished steel, certainly enough to depress steel prices to levels below costs of production for many U.S. producers. 1998 is turning into a year in which 9 to 10 million tons of additional imported steel, over and above the 31 million tons imported last year, is the straw that broke the camel's back.<sup>49</sup>

Anecdotal evidence suggests that a buildup of inventories may have also taken place among nontraditional holders of steel, such as traders and importers. Some market observers have alleged that importers brought in and warehoused large quantities of steel during 1998 at the low prevailing prices to avoid problems associated with future trade cases. These observers reported large inventories built up right at or near the



**2-7. U.S. Imports of Steel Mill Products**



**2-8. U.S. Imports Of Hot-Rolled Steel\***

No one can recall a time when U.S. steel prices have fallen this far this fast in a period of record U.S. market demand.

Peter Kelly, CEO, LTV Steel, before Senate Finance Committee

ports, presumably in large part by traders.<sup>50</sup> In New Orleans, steel was being piled up wherever there was room, both inside the warehouses and outside in parking lots and along the roads. As noted by New Orleans port official Robert Landry at the time of the crisis, “We’re using every square inch we have for cargo, and most of it is steel.”<sup>51</sup>

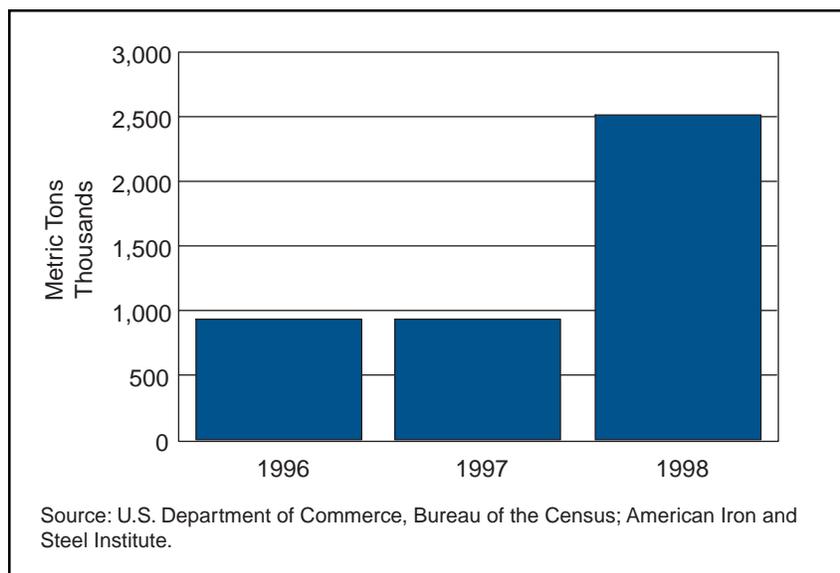
As the imports arrived, they not only exceeded U.S. demand, but also took significant market share. In particular, imports of finished steel products increased 40 percent, accounting for

roughly 9 million MT of the 9.4 million MT increase in steel imports. The import penetration level for finished steel (*i.e.*, the share of the U.S. market accounted for by imports) climbed to 33.4 percent in November 1998—up from 23 percent in March and the highest monthly level in more than twenty years. At the same time, U.S. capacity utilization fell considerably, indicating that increased imports were not merely filling a void that U.S. producers could not fill. Import increases occurred across all segments of the domestic industry. While the

increases in flat-rolled products, particularly hot-rolled steel, received the most attention, dramatic increases occurred in a variety of long products and pipe and tube (Charts 2-8, 2-9, 2-10, 2-11, 2-12).

### Import Surge Traceable to a Few Countries

Three countries—Japan, Korea, and Russia—accounted for the vast bulk of the import increases in 1998. Compared to 1997, steel imports rose 162 percent from Japan, 108



**2-9. U.S. Imports of Heavy Structural**

percent from Korea, and 59 percent from Russia. These three countries alone accounted for 7.13 million MT, or about 76 percent of the overall 9.40 million MT increase in steel imports in 1998 (*Chart 2-13*).

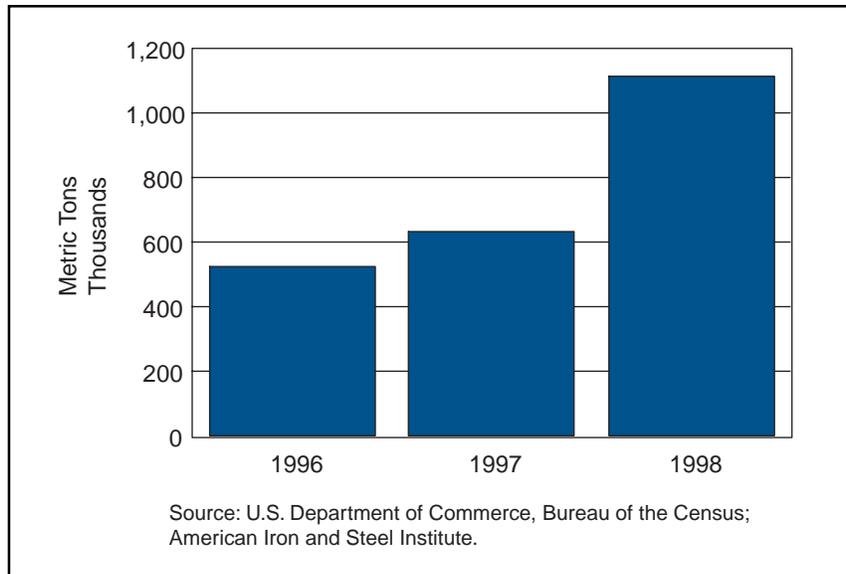
In sharp contrast to the large import increases from Japan, Korea, and Russia, 1998 imports from other major foreign steel suppliers to the United States fell or remained at roughly the same level.

- Imports from the EU fell 4 percent.
- Imports from Mexico fell 5 percent.
- Imports from Canada increased slightly, up 3 percent compared to 1997.

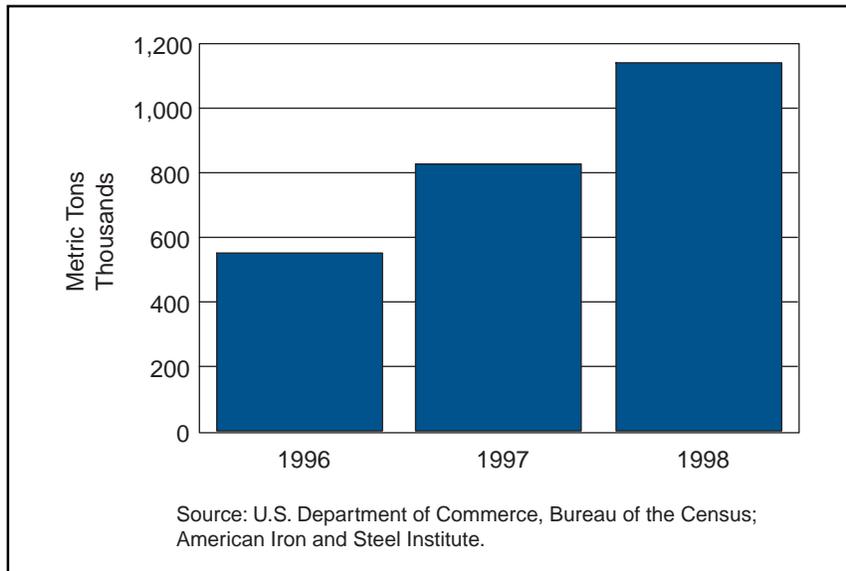
### As Imports Rise, Prices Tumble: Product-by-Product Review

An examination of individual product categories underscores the major role that imports from Russia, Japan and Korea played in 1998. Although imports from each of these countries did not necessarily surge in every product category (*e.g.*, Russian import increases were confined primarily to hot- and cold-rolled steel, while imports of Korean hot-rolled steel fell in 1998),<sup>52</sup> in most product categories, rising imports from one or more of these three countries were a significant factor behind the overall increase in that product category.<sup>53</sup>

The increases in imports, coupled with aggressive pricing by suppliers of Russian,



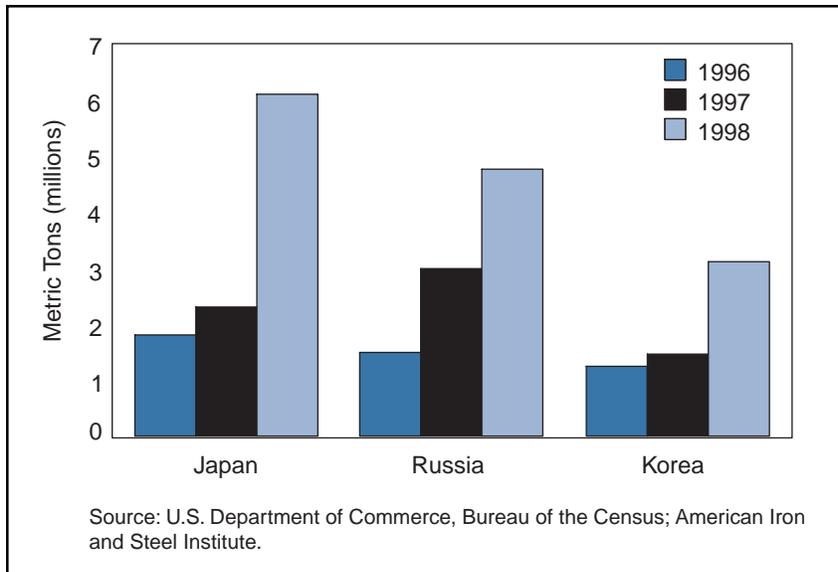
2-10. U.S. Imports of Rebar



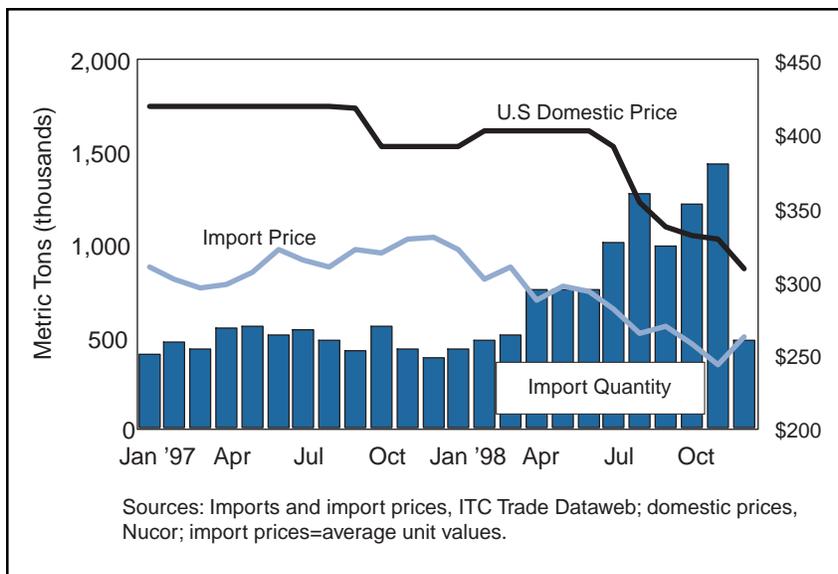
2-11. U.S. Imports of Line Pipe

Product Group	1997 Imports (metric tons)	1998 Imports (metric tons)	Percent Change 1997–1998
Total Steel Mill Products	28,264,788	37,666,050	33
Finished Steel	22,496,615	31,519,107	40
Hot-rolled Steel	6,092,967	10,608,242	74
Cold-rolled Steel	3,699,821	4,055,110	10
Cut-to-length Plate	1,259,123	1,927,470	53
Heavy Structural	933,170	2,518,343	170
Rebar	636,218	1,115,118	75
Line Pipe	832,014	1,141,965	27

Source: U.S. Department of Commerce, Bureau of the Census; American Iron and Steel Institute.



**2-13. U.S. Steel Imports from Japan, Russia & Korea (1996-1998)**



**2-14. U.S. Imports of Carbon Hot-Rolled Steel Products (1997-1998)**

Japanese, Korean, and Brazilian steel led to a dramatic drop in U.S. steel prices despite increased demand. A product-by-product review of prices shows how the crisis developed.

### Hot-Rolled Steel

The first indications of aggressive pricing tactics came in the spring of 1998, particularly on the West Coast where increased imports of hot-rolled steel from Japan and plate and line pipe from Korea first appeared. Overall prices for imported hot-rolled steel fell 18 percent, by \$59 per MT (*Chart 2-14*).<sup>54</sup> Prices for hot-rolled steel from Brazil, Japan and Russia fell as much as 24 percent, 27 percent, and 23 percent, respectively from their highs in January to their lows the last three months of 1998.<sup>55</sup>

Prices for hot-rolled steel from Russia and other nonmarket economies (which are traditionally lower because of perceived quality differences for these products) fell even lower in 1998, causing concern not only for U.S. integrated producers but also for many mini-mill producers. In August 1998, John Correnti, then CEO of Nucor (the largest U.S.

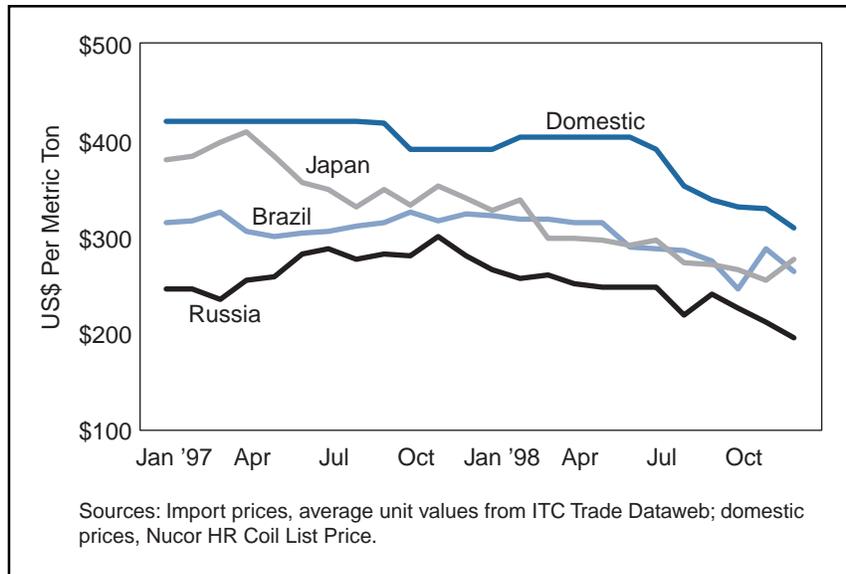
mini-mill and one of the lowest cost producers), wrote in a letter to Commerce Secretary Daley, “These [Russian mills] are some of the least efficient mills in the world and we have no idea how they can afford to sell steel at these prices.”<sup>56</sup>

Russian prices apparently became a target for exporters of Japanese and Brazilian hot-rolled steel (*Chart 2-15*). Pressure to match the Russian import price in the United States was also noted by a number of steel service centers and distributors who reported receiving faxes from Japanese companies offering to provide Japanese-quality steel at Russian prices. The press also reported on this pricing pressure.<sup>57</sup>

**Dumping Cases.** In September 1998, twelve steel companies, along with the United Steelworkers of America and the Independent Steelworkers Union, filed dumping petitions on imports of hot-rolled steel

from Brazil, Japan, and Russia.<sup>58</sup> A countervailing duty petition on imports of these products from Brazil was filed at the same time.

- Imports of hot-rolled steel were found to have been dumped at substantial margins in all three investigations: from 41 to 43 percent for Brazil, 18 to 67 percent for Japan, and 74 to 185 percent for Russia.<sup>59</sup>
- The dumped imports of hot-rolled steel were also found to have injured the U.S. industry. In its final affirmative injury



**2-15. Carbon Hot-Rolled Steel, U.S. Import vs. Domestic Prices**

determination on hot-rolled steel from Brazil, Japan and Russia, the ITC found that imports from these countries suppressed prices in the U.S. market.

U.S. firms reported that they generally reduced prices and/or rolled back announced price increases to avoid losing sales to competitors selling imports from the three subject countries. Despite these cutbacks, U.S. firms reported losing \$423 million in sales.<sup>60</sup>

Imports were not the sole factor behind price declines or industry woes. Other factors—including preexisting problems, increased domestic competition, and the strike at General Motors during the summer of 1998—played a role as well.

**Preexisting Problems.** Although 1997 was a good year for the U.S. steel industry, some U.S. companies were facing problems with start-up operations or were in the midst of modernization efforts that left them vulnerable to the events of 1998. Adam Ritt, the executive editor of *New Steel*, cautioned steel makers against using imports as the sole explanation for the industry’s problems:

Imports set a record last year, and a significant portion of the steel was dumped or otherwise sold in violation of trade laws. Domestic steelmakers are right to object to unfairly traded imports that have led them to lay off thousands of workers and idle facilities. They’re right to tell the government and public how they’ve been injured in campaigns such as Stand Up for Steel.

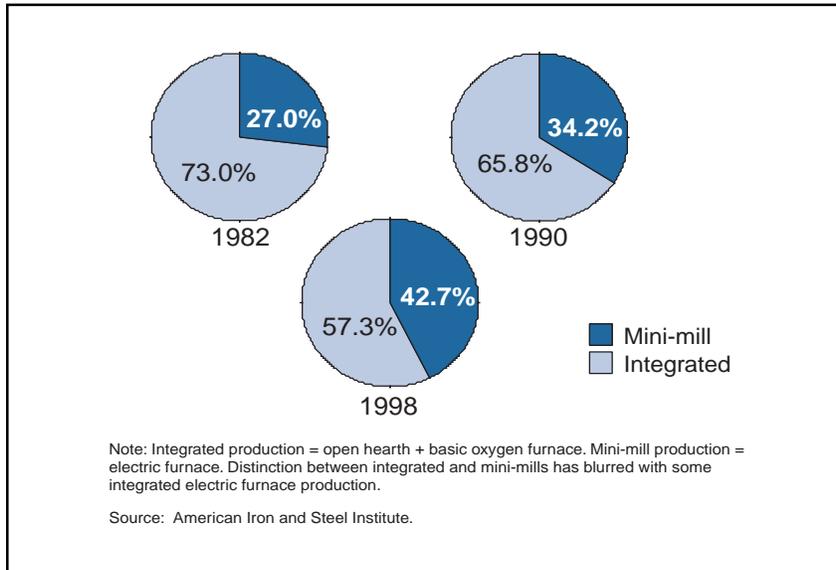
But in telling this story, we run the risk of allowing steelmakers’ other problems to stay in the shadows. This would be a disservice to workers, shareholders, and the public. Some of the companies that are most troubled today, including Acme Metals, Laclede, Geneva Steel, and Northwestern Steel and Wire, had problems dating to before the current imports crisis.<sup>61</sup>

In his editorial, Ritt noted that the rough start-up of Acme’s new thin-slab mill and the incomplete modernization efforts at Geneva Steel had caused both companies problems prior to the import crisis and were at least partially to blame for the companies’ current woes.<sup>62</sup>

**Domestic Competition.** Some have suggested that domestic competition between large integrated mills and more efficient mini-mills<sup>63</sup> was the driving force behind the drop in U.S. steel prices in 1998.

Industry restructuring in the 1980s and 1990s led to an increasing mini-mill presence in the U.S. industry. Initially producing low end products such as concrete reinforcing bar (rebar), mini-mills now produce a wide range of products including hot-rolled sheet, cold-rolled sheet, plate-in-coils, wide-

flanged beams and high quality bar products.<sup>64</sup> Cost advantages and willingness to price aggressively had resulted in mini-mills dominating certain segments of the market such as high quality bar or, in the case of rebar and structural beams, taking them over completely from domestic integrated producers.<sup>65</sup>



**2-16. Share of Raw Carbon Steel Production, Integrated vs. Mini-mill**

According to this theory, sharp declines in scrap prices set the stage for the 1998 crisis. The mini-mills' significant cost advantage on their chief input product enabled them to price aggressively in order to increase sales and market share (*Chart 2-16*).<sup>66</sup> Unable to meet low mini-mill prices, U.S. integrated

producers were driven from the market and forced to lay off workers. In this scenario, steel imports did not drive down prices in the U.S. market; foreign steel companies were forced to follow the mini-mill lead or be driven from the market. There was no U.S. steel crisis per se, only a crisis for U.S. integrated producers caused by increased domestic competition within the U.S. market.

However, U.S. mini-mills did not lead the price declines for hot-rolled steel in the U.S. market. Following a small dip in the fall of 1997, prices charged by Nucor, the leading U.S. mini-mill, remained flat until the summer (*Chart 2-14*). During that same time, import prices of hot-rolled steel from Brazil, Japan and Russia fell steadily.<sup>67</sup> The role of mini-mill price competition was addressed in the ITC's injury determination in the hot-rolled steel investigation. In discussing whether increased competition within the domestic industry accounted for the price declines in 1998, the ITC stated:

It is significant that the hot-rolled steel prices of Nucor (which is regarded by the domestic industry and importers alike as an established and efficient mini-mill and widely looked to as a domestic price leader) declined dramatically during the latter half of 1998 as subject import volumes increased at their fastest rate during the period of investigation. Nucor's prices recovered only as the subject imports exited the market. These facts suggest that factors other than increased competition within the domestic industry contributed to the significant price declines in the latter part of the investigation period.<sup>68</sup>

In addition, although average scrap prices in 1998 were 17 percent below scrap prices in 1997, financial data reported by Nucor, the largest volume mini-mill producer of flat-rolled steel, suggests that the overall mini-mill cost reductions were not that large.<sup>69</sup> In its 1998 annual report, Nucor stated that "the major component of cost of products sold is raw material costs" and that the "average price of raw materials was substantially unchanged in 1998, 1997 and 1996."<sup>70</sup> Furthermore, Nucor states that "[s]crap and scrap substitutes are the most significant element in the total cost of steel" and that "their average cost in 1998 was comparable to the \$145 per gross ton in 1997."<sup>71</sup> The price relationship between scrap prices and

finished steel prices is very complex and declines in scrap prices do not necessarily lead to declines in finished steel prices.<sup>72</sup>

The explanation of 1998 as an “integrated mill crisis” ignores the fact that mini-mills were also hard hit by low-priced steel imports in 1998—in some cases, even harder than their integrated mill counterparts.<sup>73</sup> In examining the domestic industry in 1998, the ITC noted:

Indeed, the same trends for the industry as a whole are also apparent in the separate results of both integrated mills and mini-mills. . . . In fact, mini-mills fared even worse than integrated mills from 1997 to 1998. . . . The worse financial performance of [mini-mill] producers reflects in part their greater dependence on the merchant market, where imports are concentrated.<sup>74</sup>

The ITC did not find that the industry’s poor performance in 1998 was driven by increased domestic competition rather than the effect of increased imports.

Mini-mill competition was an important condition of competition in 1997, yet the domestic industry performed well that year. The incremental increase in mini-mill capacity from 1997 to 1998, particularly in light of the substantially larger increase in mini-mill capacity from 1996 to 1997, does not account for the bulk of the downturn in the domestic industry’s financial indicators from 1997 to 1998.

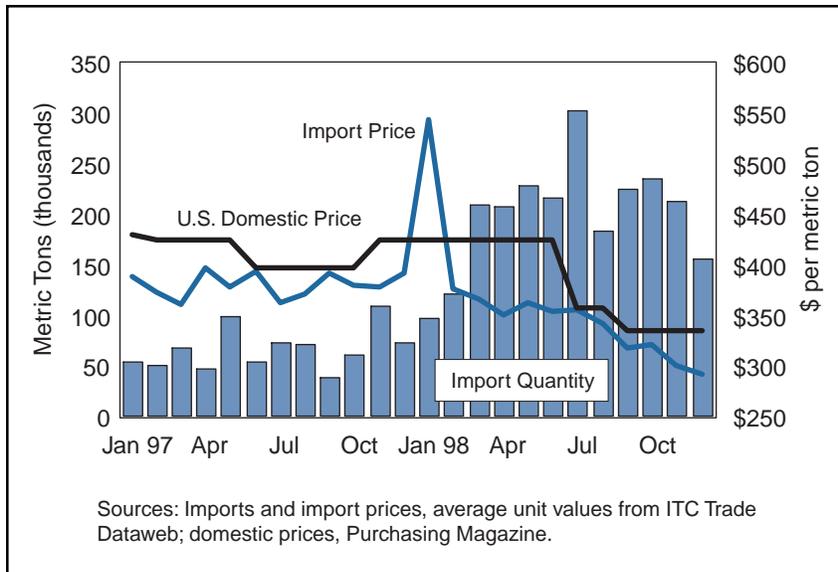
Thus, while we recognize increased competition within the domestic industry has contributed to the domestic industry’s poorer performance in 1998, it only partially explains the substantial declines in the domestic industry’s performance in 1998.<sup>75</sup>

**General Motors Strike.** The 1998 strike at General Motors also played a role in the price declines and industry misfortunes seen that year. The strike came at a sensitive time, as financial crises abroad impacted the world steel market and as U.S. imports were beginning to increase. When the strike began in June 1998, it was also unclear how long it would last and what effect it would have on U.S. mills and other suppliers.

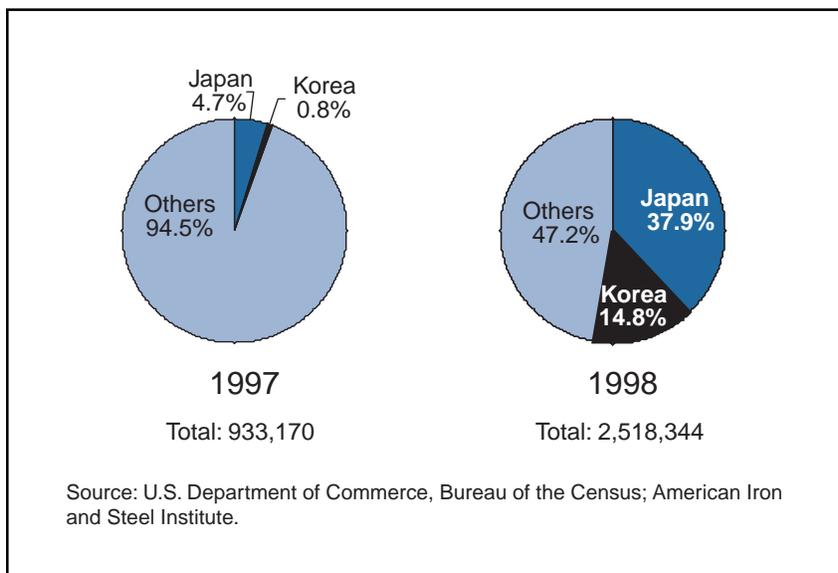
According to G. Mustafa Mohaterem, GM’s chief economist, the GM strike resulted in a considerable loss of revenue for U.S. integrated mills given the fact that GM purchases almost all of its high-quality, high-priced steel from integrated mills in the United States and Canada.<sup>76</sup> In addition, the uncertainty about the length of the strike exerted downward pressure on prices in the steel market.<sup>77</sup>

In the end, the strike lasted only fifty-four days. While some short-term shutdowns and layoffs were attributed to the strike, the strike appears to have had a relatively limited impact on the steel market outside the cold-rolled and corrosion-resistant steel segments of the industry where most of GM’s purchases are concentrated.<sup>78</sup> Taking into account increased GM purchases after the strike, mills in the United States and Canada lost roughly 400,000 MT of sales to GM as a result of the strike.<sup>79</sup> Even assuming that none of these lost sales were offset by increased steel consumption by other U.S. automakers, the lost volume represents less than half of 1 percent of total U.S. apparent consumption in 1998 and accounts for less than 1 percent of flat-rolled steel shipments.<sup>80</sup> Even during the strike, the unadjusted 620,000 MT figure only represents approximately 3 percent of total steel apparent consumption and approximately 7 percent of flat-rolled apparent consumption in those two months. For comparison purposes, the increase in imports of steel mill products in 1998, compared to 1997 exceeded 9 million MT, while the increase in imports of flat-rolled products in 1998 exceeded 5.5 million MT.

The ITC considered the effects of the GM strike in making its determination in the investigation on hot-rolled steel from Japan and acknowledged that by having some effect on overall demand in 1998, the strike



**2-17. U.S. Imports of Heavy Structural (1997–1998)**



**2-18. U.S. Imports of Heavy Structural, Share of Total Imports**

played some role in the price declines. However, at the same time, the ITC noted:

The strike only lasted five weeks and the total quantity of material not purchased during the GM strike ... was not enough to explain the kind of price declines that occurred in 1998. ... Thus, at most, we consider the GM strike to be only a partial explanation for declining prices in 1998.<sup>81</sup>

This view was echoed by other experts on the U.S. steel industry, including Father William Hogan and Frank Koelble, Director and Associate Director of Fordham University's Industrial Economics Research Institute.<sup>82</sup>

### Heavy Structural

In 1997, imports of heavy structurals from Japan and Korea, combined, were less than 52 thousand MT. By the end of 1998, imports of heavy structurals from these two countries exceeded 1.3 million MT, an increase of more than 2,450 percent over 1997 (Chart 2-17). In 1997, imports from Japan and Korea

accounted for less than one percent of the U.S. market. One year later, their combined share of the U.S. market increased to 19 percent and the two countries accounted for more than 50 percent of U.S. imports, up from less than 6 percent in 1997 (Chart 2-18). In early 1998, Japanese and Korean trading companies began offering wide flange beams at delivered prices to Gulf-state and Midwestern ports that were significantly below then prevailing spot prices.<sup>83</sup> As prices for domestic wide flange beams fell 21 percent in 1998 (by \$88 per MT), import prices continued to drop further, remaining below U.S. mill prices throughout 1998.

**Dumping Cases.** Nucor joined Chaparral Steel and Northwestern Steel and Wire in filing antidumping cases on imports of structural beams (a heavy structural product) from Japan and Korea. According to John Correnti, then President and CEO of Nucor, "Five to ten years ago, Nucor was not of the opinion [that] steel was dumped, but just was produced for less. In beams, that's not the case."<sup>84</sup> The U.S.

Department of Commerce determined that imports of structural beams from Japan and Korea were dumped in the U.S. market, with dumping margins ranging between 32 and 65 percent for Japan and 26 and 50 percent for Korea. The ITC has issued a final affirmative injury determination with respect to imports of these products from Japan. A decision on Korea is scheduled for later this summer.

### **Cold-Rolled Steel**

Prices for domestic cold-rolled steel fell 14 percent in 1998 (by \$72 per MT) while import prices fell 26 percent (by \$129 per MT). Cold-rolled steel prices from Brazil, Japan, and Korea fell more sharply—by 37 percent, 27 percent, and 51 percent, respectively—while Russian prices fell 10 percent.

**Dumping Cases.** After cases were filed by the U.S. industry, the Commerce Department found dumping margins ranging upward of 164 percent in the cold-rolled steel investigations against Argentina, Brazil, China, Indonesia, Japan, Russia, Slovakia, South Africa, Taiwan, Thailand, Turkey, and Venezuela. However, the ITC determined that the U.S. steel industry was not injured by imports of cold-rolled steel.<sup>85</sup> The ITC disagreed with the U.S. industry's position that production committed to joint ventures should not be used in calculating market share. The ITC included such production in determining the size of the U.S. market, and as a result, attributed a lesser degree of importance to the impact of imports and a greater degree of importance to domestic factors such as mini-mill competition and the GM strike.<sup>86</sup>

As these ITC decisions indicate, the GM strike had a greater impact on the cold-rolled and corrosion-resistant markets than it did on other segments of the steel market—approximately 80 percent of GM's purchases are of these two products.<sup>87</sup> Various service centers that deal with GM indicated they lost a considerable amount of business during the strike,<sup>88</sup> and several steel companies cited the GM strike as a factor depressing earnings in their quarterly financial statements (the strike spanned two quarters, second quarter 1998 and third quarter 1998).<sup>89</sup>

### **Stainless Steel Flat-Rolled Products**

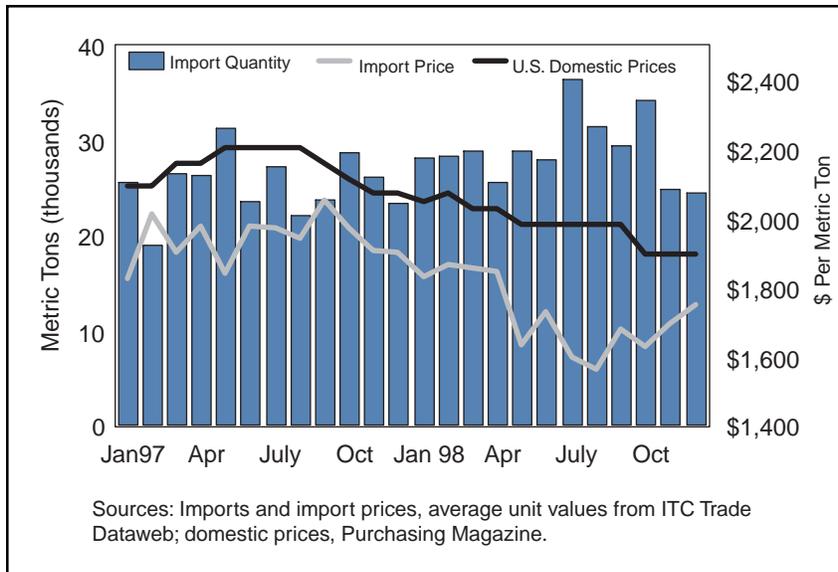
Specialty steel producers were also hit hard by low-priced imports during 1998, including producers of stainless plate-in-coils and stainless sheet and strip. Again, a familiar pattern emerged of falling prices in “an environment of almost unprecedented demand growth.”<sup>90</sup>

**Stainless Plate-in-Coils.** The specialty steel industry initially filed antidumping and countervailing duty cases against stainless plate-in-coil imports from Belgium, Canada, Italy, Korea, South Africa, and Taiwan.

- The Commerce Department found dumping margins of 16 percent in the Korean dumping investigation and issued a negative determination in the Korean subsidy investigation.
- In the remaining cases against Belgium, Canada, Italy, South Africa, and Taiwan, Commerce found dumping margins ranging between 7 percent and 45 percent and subsidy margins ranging between 2 percent and 15 percent.

The ITC determined that the U.S. industry was materially injured by dumped and subsidized imports of stainless hot-rolled plate-in-coil imports.

**Stainless Cold-Rolled Sheet.** A closer examination of the situation in 1998 for stainless cold-rolled sheet and strip provides an example of prevailing pricing pressures. U.S. imports of stainless steel cold-rolled sheet and strip were fairly even throughout 1997. Overall import prices, however, were on a continuous downward trend, from \$2,053 per MT in September 1997 to \$1,565 per MT in August of 1998—a 24



2-19. U.S. Imports of Stainless Cold-Rolled Steel

percent decline (Chart 2-19). U.S. domestic prices also trended downward during this period even though demand for stainless products was rising.

Imports from Japan and Korea played an important role. Japan and Korea have historically been significant suppliers of stainless steel sheet and strip to the United States. However, between 1997 and 1998, import prices for cold-rolled sheet and strip from Japan and Korea showed considerable volatility. Prices of imports from Japan fell from \$2,151 per MT in December 1997 to \$1,363 per

MT in May 1998—a 37 percent drop. Korean prices fell from around \$1,700 per MT in the last quarter of 1997 to \$1,073 per MT in November 1998—a nearly 40 percent drop. During this period, the won devalued significantly.<sup>91</sup>

In July 1998, the Commerce Department initiated antidumping and countervailing duty proceedings on imports of stainless steel sheet and strip (both hot-rolled and cold-rolled) from a number of countries, including Japan and Korea, in response to a petition filed by the major U.S. stainless steel producers.

- Commerce found dumping margins for Japanese producers ranging from 37 percent to 58 percent.
- For Korea, Commerce found dumping and subsidy margins ranging from *de minimis* to 59 percent.
- In the remaining cases against France, Germany, Italy, Mexico, Taiwan, and the United Kingdom, Commerce found dumping and subsidy margins ranging from 1 percent to 35 percent.

The ITC determined that the U.S. industry was materially injured by dumped and subsidized imports of stainless steel sheet and strip, noting that U.S. domestic price declines could be “attributed to a significant degree to the increasing volume of subsidized and LTFV [less than fair value] (*i.e.*, dumped) imports.”<sup>92</sup>

### Other Steel Products and Dumping Cases

Similar pricing patterns appear in other product lines. For example, import prices for cut-to-length plate fell 11 percent during 1998 and continued to decline in early 1999. In response, the industry filed antidumping and countervailing duty cases on cut-to-length plate imports from eight countries. The cases resulted in final affirmative decisions by both Commerce and the ITC against six countries.<sup>93</sup> Final dumping margins ranged between *de minimis* and 72 percent. Final subsidy margins ranged between *de minimis* and 48 percent.

By the end of 1999, antidumping investigations had also been filed on imports of seamless pipe from various countries and tin mill products from Japan. Commerce found dumping margins ranging from 11 percent to 108 percent in the seamless pipe investigations and from 32 percent to 95 percent in the tin mill products investigation.

## The Role of Trading Companies

Trading companies have been at the forefront of the globalization in steel trade. If trade is fair and markets are open, their role is a positive force for globalization.<sup>94</sup> But when markets are structurally distorted, trading companies are the conduit through which these distortions spill over into the global marketplace.

There are basically four means by which trading companies, at least by some accounts, made the effects of the 1998 global steel downturn worse for the U.S. market: their flexible purchasing and selling operations, their impact on certain countries' price structures, their potential for fueling speculation, and their attempts to beat antidumping duty deadlines. For the most part, these commercial practices are normal responses to market forces and factors influencing the market. With the possible exception of their role in marketing steel from Russia, trading companies usually make markets more efficient. Trading companies generally are not themselves responsible for subsidies, anticompetitive behavior, or other market-distorting practices. However, when producers, who sell to the trading companies, engage in or benefit from these practices, trading companies, inadvertently as it were, spread the market distortions to all their customers.

### Flexible Operations

Most trading companies purchase steel based on three basic market principles: the best product, the best price, and the best way to satisfy the requirements of the customer. Flexible operations help trading companies satisfy these criteria. Since global trade in steel is dominated by a relatively small number of large, multinational trading companies, they can change their suppliers with relative ease and speed, reorient their sales focus to the market with the strongest current prices (provided that market is open), and sell to different customers on the spot market. Some trading companies, particularly Japanese traders, that act as the distribution arm of a particular steel maker or makers may be restricted to purchasing steel produced by those companies (*see box*). However, most trading companies are free to buy steel from any steel producer in any country.

In 1997, during the Asian financial crisis, trading companies demonstrated this flexibility. When Asian steel markets collapsed, trading companies shifted to suppliers who had been serving Asia and now had available large amounts of steel. Just as quickly, trading companies replaced lost Asian customers with U.S. customers. In a matter of one or two months,<sup>95</sup> trading companies had redirected their purchasing and selling operations from Asia to the United States.

### *Japanese Trading Companies*

Most Japanese trading companies still purchase the majority of their steel from Japanese steel mills. Japanese trading companies have long-term relationships with Japanese mills. These relationships have enabled the trading companies to become essentially the sole exporters of Japanese-produced steel. Although Japanese traders selling steel in the United States do not appear to switch their source of supply from one country to another to the degree that other trading companies do, Japanese trading companies interviewed for this report indicated that over the last five years they have increased their purchases from steel mills in countries other than Japan. One Japanese trader claimed that approximately 50 percent of the steel it purchases is from non-Japanese producers. Thus, Japanese traders are moving in the direction of more flexibility in their steel purchasing.

Japanese mills do not appear to be following suit with respect to their selling practices. One trading company interviewed for this report asserted that Japanese steel mills allocate their export sales to their preferred Japanese trading companies. For example, a Japanese mill may allocate its export sales among four Japanese trading companies, with each company getting 25 percent of the sales. In this scenario, each Japanese trading company recognizes that the mill expects it to sell a certain tonnage of steel over the year and, if sales are slow, may lower its prices to increase its volume in order to meet its obligation. According to the trader making this assertion, this arrangement reinforces the relationship between the mill and the trading company.

Such flexibility has positive and negative impacts on global steel trade. By quickly sourcing and selling steel in response to changing market conditions, trading companies have furthered the integration of individual steel markets into the global marketplace. By the same token, trading companies can precipitate significant fluctuations in the quantity of imported steel into or out of any individual market.

### **Impact on Prices**

Trading steel is a competitive, low-cost, low-margin business. Traders do not produce or further manufacture steel, but instead provide services that can (for the most part) be duplicated by anyone with a phone and fax machine. They survive on their ability to buy steel at a low price from a mill and sell it for a higher price to a customer. The selling price is the sum of the mill's price, a markup to cover costs (*e.g.*, selling/administrative and transportation) and profit. Stiff competition from other traders often puts a ceiling on how high the selling price can be and also keeps profit margins low—usually under 5 percent according to the trading companies interviewed.

Trading companies cannot, individually, cause market prices to increase or decrease. Each company in isolation is subject to market forces. Although traders occasionally recount instances when they are forced to sell at a loss during times of precipitously falling markets, thin profit margins limit their motivation for independently offering large price cuts to their customers.<sup>96</sup> Thus, significant declines in steel prices, for the most part, must originate with steel producers.

***Japanese Trading Companies.*** The role of steel mills in pricing was demonstrated during the U.S. steel import crisis when Japanese mills decided to drop their prices. According to several sources, Japanese trading companies offered high-quality Japanese steel at Russian prices during the 1998 steel crisis.<sup>97</sup> A trading company official said that these low prices began with the Japanese mills dropping their prices to the Japanese trading companies. Offering high-quality Japanese steel at Russian prices dragged the entire upper tier of the market down.

Japanese trading companies, however, have stated that they did not lower their prices to match the prices being charged on Russian steel. According to Japanese traders, high-quality Japanese steel typically sells for \$40–50 per MT more than lower-quality Russian steel. They assert that when U.S. market prices drastically fell, the price of Japanese steel fell in line with the overall fall in the market. One Japanese trader said that while the price gap may have narrowed by \$10 to \$30–40 per MT, it never disappeared completely. Another Japanese trader said that the normal time lag between placing an order and receiving delivery, in the context of a dramatically falling market, may give the appearance of Japanese steel prices matching Russian prices.<sup>98</sup>

***Foreign Mills and Affiliated Distributors.*** Several of the largest trading companies belong to industrial conglomerates that own and operate steel mills, trading companies, and service centers. Although the companies that are part of industrial conglomerates claim that their trading and service center operations conduct business at arm's length, one service center said that these conglomerates occasionally use their corporate distribution chain (*i.e.*, subsidiary trading companies and service centers) to move large volumes of steel produced by affiliated mills into the United States at low prices. While foreign mills can also move large quantities of steel using unaffiliated trading companies, the lack of transparency for transfer prices within the corporate family may make use of affiliated distribution chains more attractive.

***Russian Mills.*** For a number of reasons, the normal connection in the selling prices between mills and traders is more ambiguous in the case of Russian mills. After the breakup of the Soviet Union, Russian steel mills lacked marketing and exporting experience. They had inherited unsophisticated accounting systems that obscured the true cost of producing steel. During Russia's severe economic turmoil of the late 1990s, steel mills increasingly turned to a system of barter to trade finished steel products for desperately needed raw materials and working capital.

Trading companies viewed these atypical circumstances as an opportunity to increase their profits by integrating themselves into the mills' operations to a greater degree than they had in other countries. Trading companies supplied Russian mills with raw materials, working capital, and, in some instances, established equity stakes in mills. In return, these trading companies gained influence over the mills in determining the purchase price of the Russian steel. The extremely low purchase prices these trading companies extracted from Russian mills allowed them to undercut prevailing market prices and still make a profit.

These examples show that trading companies can affect U.S. price in a number of ways. Trading companies serve as the conduit for significant price cuts originating from foreign mills and, in aggregate, can induce large, fast swings in supply that, in situations of oversupply, depress prices. Trading companies capitalized on an atypical situation that allowed them to sell Russian steel at low prices and still make a profit. As Russian mills increase their sophistication and decrease their reliance on trading companies, this situation will, most likely, no longer exist.

### **Potential for Speculation**

Some observers have claimed that the 1998 import surge was primarily caused by trading companies speculating during strong U.S. market demand in late 1997 and early 1998. Under this scenario, trading companies, prior to having customers' orders, purchased and imported huge quantities of steel to sell on the rising U.S. spot market for a quick profit.

Many traders interviewed for this report stated that their companies did not speculate in the U.S. steel market. However, sources indicate that during early 1998, most traders were speculating and steel was being imported for inventories and piling up on the docks.<sup>99</sup>

### **Beating the Antidumping Duty Deadline**

Trading companies are often the importer of record for steel imports and, as such, are responsible for paying antidumping duties on imported merchandise subject to an antidumping order. Given the potentially high cost of antidumping duties, trading companies take notice when domestic steel mills discuss the possibility of filing new antidumping petitions. Several trading companies interviewed for this report acknowledged that they closely track the progress of antidumping investigations and calculate the likely effective date for imposing potential antidumping duties (usually the date of the preliminary determination) and attempt to bring in as much steel as possible before that date. Trading companies increased imports in mid- to late 1998 in order to beat the deadline on the antidumping cases. This increase may have helped to depress prices by increasing the already abundant supply.

### **Overall Impact of Trading Companies**

The steel crisis of 1998 was the result of the confluence of many factors that led to a large increase in the supply of steel in the U.S. market and downward pressure on prices. Trading companies, by rapidly transmitting the changes to the global economy, affected the crisis in several ways. They rapidly shifted focus from the collapsed Asian steel markets to the U.S. market. Trading companies selling Japanese and Russian steel tended to undercut U.S. market prices.

### **Lost Sales and Falling Prices Hit the U.S. Steel Industry**

In the second half of 1998, a number of U.S. steel companies lost customers to low-priced steel imports. Lost sales were combined with lowered revenue on the remaining sales as companies tried to keep up with import prices. The result was a sudden drop in sales revenue, operating income and profits in the second half of 1998 that lasted well into 1999.

The effects were particularly hard felt by smaller U.S. companies, such as Acme Steel, which had been modernizing and upgrading production. Between 1994 and 1996, Acme Steel invested more than \$400 million to modernize its facilities and preserve its business. In conjunction with Acme's investment, employees made labor concessions in the form of new work rules and reduced employment levels. At the time imports hit, start-up at the new facility was 90 percent complete; the plant was coming on line just as prices dropped \$90 per MT on low-carbon products and \$65 per MT on low-alloy products.<sup>100</sup> In discussions held with Commerce Department officials, Jim Howell, President and CEO of Acme Steel, stated that increased imports, coupled with lost sales and falling prices, led to Acme's loss of access to capital and subsequent liquidity problems "which pushed us into Chapter 11."<sup>101</sup>

Along with Acme, five other small and medium-sized steel companies filed for bankruptcy in 1998 and 1999, while others were reportedly near bankruptcy. Throughout the U.S. steel industry, companies were affected by the 1998 import crisis. For example, steel industry operating income, as compiled by the American Iron and Steel Institute from its reporting members, began to decline noticeably in third quarter 1998, resulting in operating losses by first quarter 1999 which continued well into 1999.

A comparison of 1997 and 1998 annual operating income for certain product sectors within the steel industry shows the same pattern of sharp declines in operating incomes in 1998 compared to 1997 (*Chart 2-20*).<sup>102</sup>

<b>2-20. Steel Industry Operating Income for Various Finished Steel Product Categories (In millions of dollars except as noted)</b>				
<b>Sector</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>Percent Change 1997-1998</b>
Hot-rolled Flat Products	173	470	43	-91
Cold-rolled Flat Products	358	334	120	-64
Structural Steel Beams	311	339	258	-24
Wire Rod	-9	49	-102	-308
Line Pipe	17	35	11	-69
Stainless Sheet and Strip	224	153	45	-71

Source: Various ITC Investigation Reports.

Lost sales and falling prices led to cutbacks in production. As imports took market share, capacity utilization fell. Capacity utilization rates slid from more than 90 percent at the beginning of the year to less than 75 percent. By the end of the year, the crisis was having a direct impact on workers and their communities (*see box, next page*).<sup>103</sup>

For those laid off, employment opportunities in the surrounding area were often hard to come by. Harry Thuedaus, a corrugated machinery operator laid off by Acme Steel, found it difficult to find a new job that came close to what he was making at Acme.<sup>104</sup> The few jobs in the area that he came across paid about half of what he was making previously, and did not include insurance for either him or his family.

In Sterling, Illinois, home of Northwestern Steel, the situation was similar. When Northwestern Steel shut down its wire and wire rod division after losing 80 percent of its sales to imports, it laid off 320 steel workers; as of June 2000, fewer than fifty have returned to work.<sup>105</sup> Those that have found other manufacturing jobs in the Sterling area are paid, on average, less than half of what they made at Northwestern. Those working at nonmanufacturing jobs are generally paid even less.<sup>106</sup> With an average age of forty-five, this is a considerable economic blow to these workers (and their families).

### ***Weirton, W.V.: A Community Unites in Support of its Steel Mill***

Press reports, trade journal articles, and the Stand Up for Steel Campaign and Weirton, W.V., Web sites have noted the close link between Weirton Steel and the community of Weirton and the difficulties that the steel mill and the surrounding community faced during 1998 and 1999.

Located in the Ohio River Valley near Pittsburgh, Weirton is one of the few remaining traditional steel mill towns. Named after Ernest Weir, who located his steel mill there in 1909, Weirton came close to collapse in the early 1980s, when National Steel announced that it would cease investing in its Weirton facility. The mill's employees and the community rallied together to purchase the mill from National Steel. In 1984, newly formed Weirton Steel became the largest employee-owned company in the United States.

The town and the mill are inextricably linked. Even the town's mayor works at Weirton Steel, the fifth of eight mayors to do so. Therefore, when the crisis hit, steel workers weren't the only ones worried. Problems at the mill rippled throughout the local economy, directly or indirectly affecting everyone in the community.

Steel workers weren't the only ones to heed the call to action. The community came out in full force to assist the company and its employees in their struggle. Signs and banners urging Americans to Stand Up for Steel were posted throughout the town in businesses, along the streets, and even on the local Chamber of Commerce's Web site. Thousands of Weirton residents—men, women, and children—boarded buses at 3:00 a.m. on a cold January morning to make the trek to Washington, D.C., in order to let Congress and the Administration know what low-priced imports were doing to their community. Those who could not make the rally signed petitions and sent in letters urging members of Congress and the Administration to take action against unfairly priced imports.

The community expressed its support in other ways as well. Food banks were heavily stocked, the town ensured that utility service was not interrupted, and local banks allowed laid-off steel workers to miss occasional payments. In coming together as a community to confront a common problem, the citizens of Weirton proved that the mill towns of the past continue to have a place in the industry of the future.

Another indicator of the effect of the import surge on U.S. steel workers is the number of workers approved for Trade Adjustment Assistance in 1998 and 1999. Trade Adjustment Assistance is provided by the Department of Labor to workers who are laid off, or whose work hours are cut back, because of import competition. Assistance was approved for more than 6,000 steel industry workers in 18 states in 1998 and 1999.<sup>107</sup>

Workers also suffered in more subtle but pervasive ways. It is estimated that reduced work weeks, assignments to lower paying jobs, and early retirement affected more than 10,000 workers beyond those laid off in 1998. By the end of 1998, even Nucor, one of the most efficient and low-cost producers in the world, found itself hurt by surging imports.<sup>108</sup>

### **From Boom to Bust: 1998 Ends With Concerns for the Future**

In looking back at the events of 1998, one can trace the factors that turned a booming market into a crisis for U.S. steel companies and workers. By the end of the year, sales of domestic producers were down, prices had plummeted, and production was being cut. Trade cases had been filed, but it was still too early to determine whether they would be effective in turning back the tide of imports.<sup>109</sup>

While strong U.S. demand and other factors played a role in attracting imports, they do not tell the whole story. Other factors, such as structural problems affecting supply and prices in key countries—Russia, Japan, Korea, and Brazil—played a role in aggravating the 1998 U.S. steel crisis and in giving rise to concern about unfair trade as the crisis unfolded.



## CHAPTER 3

# Behind the Crisis

### Introduction

As their domestic and export markets declined during the Asian financial crisis, major steel producers around the world turned to other markets, especially the United States, where demand was strong, prices were high, and the market was open. Currency depreciations made the U.S. market even more attractive. While these short-term factors led to increased steel imports into the United States, market forces alone do not fully explain the speed and magnitude of the increases in low-priced imports into the United States.

The steel industries in the four countries most involved in the crisis—Russia, Japan, Korea and, to a lesser extent, Brazil—differ substantially in terms of production efficiency and quality. However, they share some common structural problems that amplified the huge import volume increases and sharp import price declines that characterized the U.S. steel crisis. Market-distorting practices in each of these countries have insulated their steel industries from competition and thereby have facilitated unfair trading. These practices include:

- Direct government assistance.
- Apparent coordination among steel producers.
- Unsound banking practices.
- Import barriers.

Some of these practices were developed in these countries as their institutional frameworks were established in support of long-term economic development, and were not necessarily always aimed at supporting the steel industry. However, in some cases, the end result was to give their steel industry a competitive edge. A closer look at the four key countries reveals how particular market-distorting trade practices exacerbated the U.S. steel crisis.

**Russia.** In Russia, while the steel industry was privatized and downsized somewhat after 1991, many of the old ways of thinking remained. Although much of the excess capacity created by the Soviet Union's central planners needed to be restructured or closed down, the Russian government and most steel firms resisted the deep restructuring that would have led to massive layoffs. To tide them over, steel companies (like other companies) bartered their products, did not pay their bills or taxes, and exploited the absence of a real bankruptcy process. Moreover, those input suppliers controlled by the state continued the traditional practice of selling cheaply to industry.

The attempt to continue business as usual ignored the reality of a 70 percent plunge in Russian internal demand. As a result, large quantities of steel production flowed onto the global market at prices that caused serious disruptions. While the problem crested in 1998, it had been building throughout the late 1990s as international trading companies sold vast quantities of low-priced Russian steel on the global market.

*Japan.* Despite the Japanese steel industry's status as an efficient, developed sector, it has continued to benefit from practices that shelter the industry and inhibit changes consistent with market forces. The most significant problem is a noncompetitive domestic market among the integrated steel producers.

Apparent coordination among integrated producers is reflected in the following market characteristics:

- **Production shares among the major Japanese companies essentially have not changed for twenty-five years.** Steel experts in Japan and the United States have cited this fact as the clearest sign that a cooperative arrangement exists. The Japanese Fair Trade Commission has also expressed concerns over the stable production shares.
- **Japanese steel imports have remained consistently low.** Despite high domestic prices, which should be a magnet for imports, the volume of imports into Japan has been persistently low. The cause appears to be a relatively closed distribution system and complex web of mill-to-mill arrangements that have the effect of limiting imports.
- **Japanese steel producers have maintained high domestic prices.** The major purchasers in Japan—so-called “big buyers” such as auto and construction firms—have paid persistently high prices for steel.

The apparent lack of meaningful competition between Japan's major producers has contributed to the long-term problem of surplus capacity. Revenues from the high-priced domestic market also confer competitive advantages for Japanese firms that have implications for global steel trade. Enhanced revenues in the Japanese market can be used to make producers more cost competitive, for example, by funding research and development, and to sustain low-priced exports.

*Korea.* In Korea, the steel industry expanded capacity through, what were in hindsight, overly ambitious projects; in many cases, these projects were made possible by unsound lending by private commercial banks and government-owned banks. Lending decisions of private banks were often subject to direct or indirect government influence. The financial sector reforms that Korea has implemented under its International Monetary Fund stabilization program have had some success in changing these practices. However, it is still unclear whether all of the past market-distorting practices have been eliminated.

Government support for Korea's largest steel producer, POSCO, has given that producer a monopolistic position that raises a fundamental concern about competition within the Korean steel market and possible trade effects. Further, as a government-owned company, POSCO was used by policymakers to further the government's industrial development objectives, which included the provision of low-cost steel to downstream producers. The Commerce Department found this practice to be an export subsidy in a recent countervailing duty investigation. The Korean Fair Trade Commission (KFTC), Korea's antitrust authority, recently has recommended breaking the giant into two separate companies because of anticompetitive effects on the domestic market. But the Korean government so far has decided not to implement that recommendation. The KFTC also raised concerns about POSCO's continued dominance in Korea because of the company's potential to abuse its market power.

*Brazil.* Although Brazilian producers did not increase their exports of certain products to the United States to the same extent that the other three countries did, they did engage in significant price cutting in order to maintain export volumes. Over the last decade, Brazil's steel sector transformed itself from state to mostly private ownership. While this has led to a greater role for market forces, the Brazilian steel sector has continued to benefit from the advantages of a domestic market insulated from real competition.

Competition has been restrained by cooperative pricing among the three major flat steel producers, as well as by barriers to steel imports, such as tariffs, taxes, and nontransparent import procedures.

The lack of domestic competition has given Brazilian producers a significant advantage over their competitors. High domestic prices have helped support low export prices—the classic conditions for dumping. The depreciation of the Brazilian currency in 1998, the accompanying U.S. price cuts, and the downturn in the U.S. market brought concerns about dumping to the forefront.

***Economic Trends and Structural Problems.*** The serious structural problems resulting from market-distorting practices in these countries were masked in the early to mid-1990s by the dual engines of economic growth in Asia and the United States. Growth in these two markets proved capable of absorbing the record amounts of steel being produced and exported. But when Japan, Korea, Brazil, and Russia experienced recession at home, as well as a collapse of key export markets, millions of tons of steel had to be diverted to other markets. With continuing growth in demand, high prices, and a huge and open market, the United States became the focus of steel producers in these four countries. A bad situation was made worse, however, by market-distorting practices tolerated or encouraged by the governments of these countries.

## 3.1 The Challenge of Integrating Russia Into the Global Steel Market

### Introduction

The Russian steel industry has long operated in a surreal economic environment in which cash was not always necessary, inputs were cheaply provided, taxes and supplier bills went unpaid and few companies were closed due to bankruptcy. In his 1999 State of the Federation address to the Russian Parliament, President Yeltsin described the state of the general economy in which the Russian steel industry operated:

We are stuck halfway between a planned, command economy and a normal, market one. And now we have an ugly model—a cross breed of the two systems.<sup>1</sup>

The Russian steel industry is caught between two systems. It was created and nurtured in one system for sixty years. It has been adapting to another system for the last ten. The industry's relationship with the government, its way of doing business, its current competitive position, and the measures it has taken to adjust to the new system are still very much reflective of its past.

The surge in Russian steel to the United States in 1998 was the culmination of several factors:

- Russia's inheritance of an immense steelmaking capacity.
- A steep decline in Russian domestic demand for steel.
- The production and sale of steel absent hard budget constraints (*e.g.*, the timely cash payment of taxes, wages, and supplier bills).
- The emergence of Russia as one of the world's biggest steel exporters.
- The diversion of Russian steel exports from Asia to the United States following the Asian financial crisis.

The diversion of Russian steel exports after the Asian financial crisis was an important reason for increased Russian exports to the United States. However, understanding what led to Russia's emergence in the course of the 1990s as one of the world's leading steel exporters requires a deeper look at the market-distorting factors at play in the Russian economy.

When domestic consumption of steel dropped, the larger Russian steel producers turned to the export market. While exports often provided the minimum amount of cash needed to operate in the Russian economy, the steel companies were able to otherwise muddle through turbulent times without real restructuring by means of:

- Cheap inputs supplied by government-controlled or subsidized suppliers.
- The pervasive acceptance of bartering.
- Widespread "nonpayment" of suppliers, taxes and workers.
- The absence of any real threat of bankruptcy.

Because of these factors, the prices accepted by Russian steel companies were not necessarily related to their true cost of production. The Russian steel industry's lack of marketing skills and heavy dependence on international trading companies compounded the problem. As the 1990s wore on, the massive volume of Russian steel exports coming on to the global steel market at soft prices—reflecting the lack of hard budget constraints in the domestic market—led to growing instability.

When the Asian economic crisis sapped the demand of the Russian steel industry’s major customers, large trade flows of steel had to be diverted elsewhere. With the closure of other export outlets through trade actions of one sort or another, Russian steel companies began selling low-priced steel to the only remaining major open market—the United States. The redirection of sales to different markets in the face of demand shifts is a normal business practice in a global marketplace. The international trade frictions resulting from Russian exports were aggravated, however, by the market-distorting practices under which steel was produced and sold in Russia.

Since 1998, the Russian economy, and the prospects for the Russian steel industry, have greatly improved. The post-1998 economic environment in which the Russian steel industry has more recently been operating is discussed in greater detail in Chapter 5.

## The Breakup of the Soviet Union and the Fall in Domestic Steel Demand

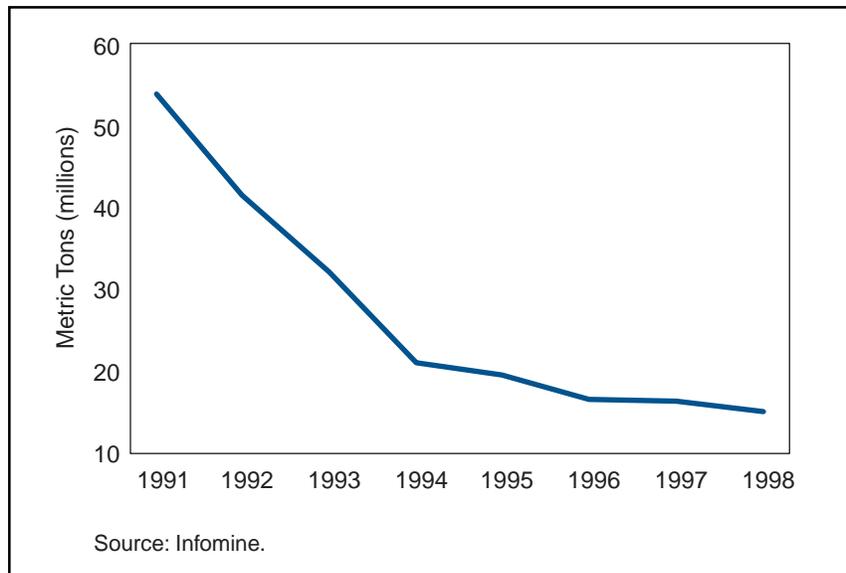
Prior to the breakup of the Soviet Union, Russian domestic consumption of steel was among the highest in the world. Per capita consumption in 1990 was 565 kilograms, on par with the European Union (EU) and North America and nearly three times the world average.<sup>2</sup> During this time, Russia was a net importer of steel, taking in almost 12 million metric tons (MT).<sup>3</sup>

### The Decline in Domestic Demand

Starting with the dissolution of the Soviet Union in 1991, Russian domestic demand for finished steel plummeted. By 1998, domestic consumption had fallen more than 70 percent from its peak reached nearly a decade earlier (*Chart 3-1*).

The primary reasons for the precipitous decline in Russian steel demand:

- A drop in defense spending.
- The breakdown in the links of the centrally planned production chain and the Soviet bloc trading system.<sup>4</sup>
- The general contraction in the Russian economy.
- The shift in the nature of the Russian economy away from manufacturing and toward services.



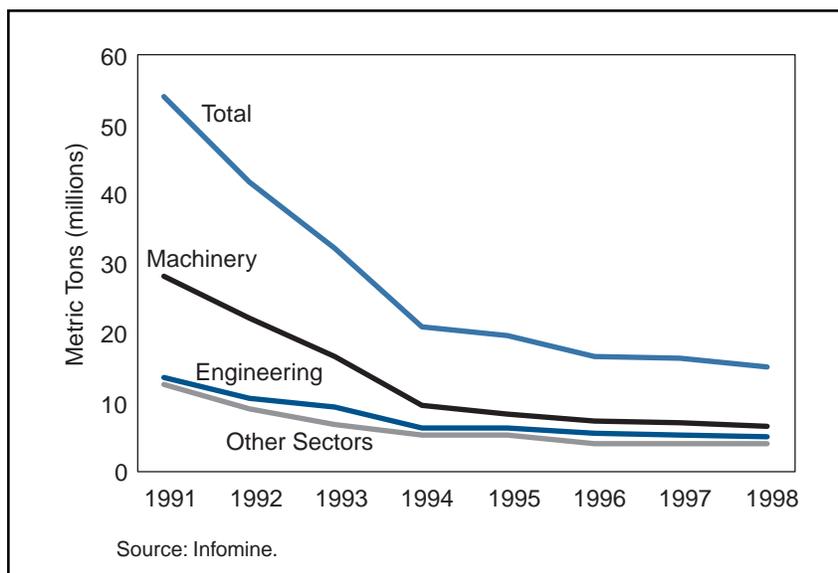
3-1. Russian Domestic Consumption of Rolled Steel

**Military Demand for Steel.** The general decline in domestic demand for steel began with declining orders from the defense industry. During the Cold War, the Soviet emphasis on military strength ensured that there was a significant and consistent demand for steel. It is estimated that the defense industry consumed 25–30 percent of all rolled steel produced in the Soviet Union.<sup>5</sup> With the end of the Cold War and government budget shortfalls that began in the early 1990s, military consumption fell dramatically. U.S. intelligence sources estimate that by 1996, defense spending in Russia had dropped by 83 percent from peak Soviet levels in the late 1980s.<sup>6</sup>

**Production Links.** A second cause of the fall in domestic demand was the dislocation and breakdown in existing production links. Under the planned economy, large-scale companies specialized in particular aspects of production and were linked to specific upstream suppliers and downstream customers. For instance, iron ore from Ukraine was shipped to Russia to make sheet, which was then shipped back to Ukraine to make pipe.<sup>7</sup> After the breakup of the Soviet Union, the old suppliers and customers were sometimes no longer in the same country, and customs duties and trade barriers were erected where none had previously existed.

At the same time, the other countries of the former Soviet Union, which had been major consumers of Russian steel, were also going through economic transition and a decline in steel consumption of their own, and unlike other export markets, often could not pay cash.<sup>8</sup> In 1990, non-Russian republics of the Soviet Union accounted for 70 percent of Russia's sales; by 1995, this figure had dropped to 6 percent.<sup>9</sup>

**Economic Contraction and Transformation.** The steel industry is still of major strategic importance to the Russian economy. However, the political and economic changes associated with the transition toward a market economy and the 40 percent contraction of the Russian economy as a whole since 1992 led to a



**3-2. Russian Domestic Consumption of Rolled Steel by Sector**

dramatic reduction in domestic steel consumption. Part of the decline in steel demand is attributable to a general shift, as seen in other industrialized nations, away from manufacturing and toward services. Russian manufacturing as a share of gross domestic product (GDP) has shrunk from 60 percent to slightly below 40 percent.<sup>10</sup>

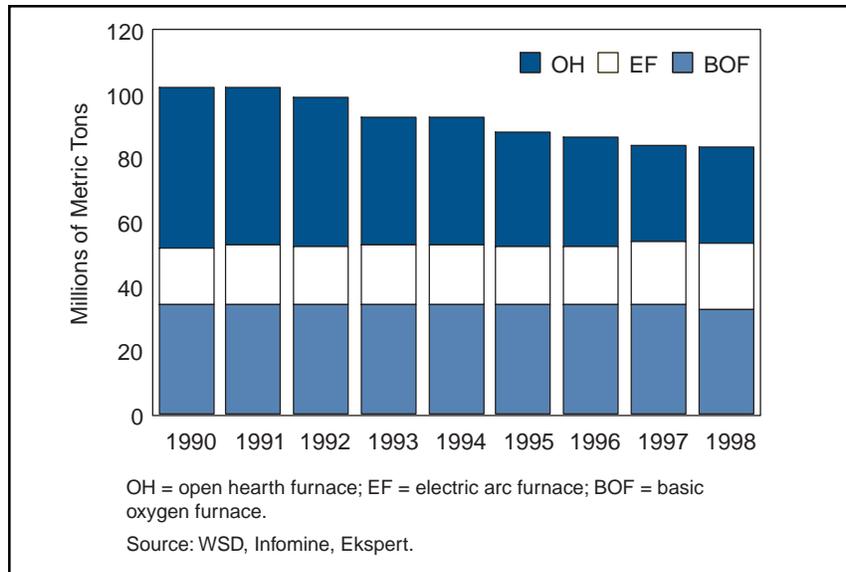
Declining domestic steel consumption was not uniform across consuming industries; rather, it depended on the extent to which these other industries faced their own problems. In general, the most steel-intensive sectors of the

economy (*e.g.*, machinery) have been the sectors whose consumption has fallen the most (*Chart 3-2*). Production of major industries that consume rolled steel has declined by 72 percent since 1991.<sup>11</sup> Production in more than twenty steel-consuming sectors fell by over 60 percent.<sup>12</sup> Construction engineering, a major user of rebar, has fallen by 40 percent.<sup>13</sup>

### **Fewer Customers + Not Enough Cutbacks = Too Much Steel**

Russia's inheritance of the majority of the Soviet Union's massive steelmaking capacity, coupled with the drastic fall in domestic demand over the past decade, is perhaps the most significant development preceding the 1998 U.S. steel crisis. This huge capacity was a remnant from the priority assigned to steel production by Soviet planners. By 1988, Soviet production of crude steel reached 163 million MT (21 percent of total world production), making the Soviet Union the world's largest steel producer.<sup>14</sup>

The Russian steel industry has made significant capacity reductions, from an industry-wide capacity level of just over 100 million MT in 1990 to 84 million MT in 1998 (*Chart 3-3*). Nearly all of the reduced capacity has been due to the closure of old open hearth furnaces.<sup>15</sup> A small amount of modern capacity (*e.g.*, electric arc and basic oxygen furnaces) has been added despite the fall-off in domestic demand and the general poor economic conditions prevalent in Russia since 1991.



**3-3. Russian Gross Crude Steel Capacity by Process**

Despite the fall in domestic consumption and an overall reduction in productive capacity, according to the President of the Russian Miners and Metallurgical Workers Union, Russia did not shut down a single steel factory and did not lay off any workers.<sup>16</sup> (While low wages make it possible for mills to retain large staffs and avoid unpopular layoffs, there have been job losses in the industry through attrition—*see box*.<sup>17</sup>).

### *Overview of the Russian Steel Industry*

The Russian steel industry is made up of more than 100 steel plants that fall into three groups, each employing roughly a third of the steel workers.

The three biggest, accounting for over 50 percent of production, are Severstal, Magnitogorsk, and Novolipetsk. These large, integrated steel works make mostly flat products. They were the primary exporters to the United States in 1998. Overall, productivity of the top three is an estimated 60 percent of U.S. productivity. Between 1990 and 1997, production for these companies dropped 25 percent while employment fell 11 percent (apparently only through attrition).

The next group, the middle six, produce about 40 percent of Russian steel. Mechel, Oskol, Nizhny Tagil, Nosta, Zapadno-Sibirsky (ZapSib) and Kuznetsk are also integrated steel companies, manufacturing mostly long and specialty products. Productivity is about 40 percent of the U.S. level. Production for these six has fallen 35 percent since 1990, while employment has declined only 1 percent.

The remaining smaller companies operate at 21 percent of U.S. productivity, using mostly open hearth furnaces. Their production has plummeted 70 percent, while employment has fallen 28 percent.

According to one study, elimination of government assistance would lead to the closure of at least one of the medium-sized companies and most of the smaller companies. If these companies were to close, an estimated 100,000 workers would lose their jobs.

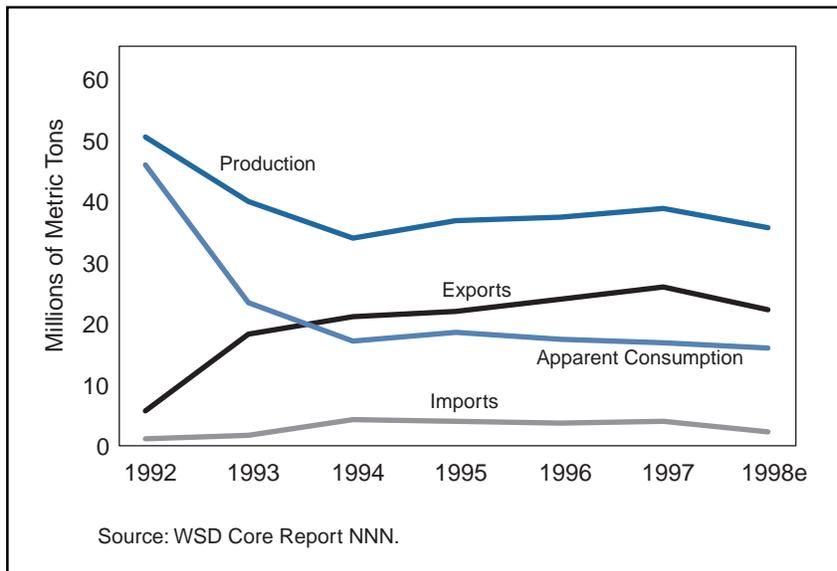
The Russian steel industry would have significant potential if it underwent real restructuring. Russia has the technical know-how, certain economies of scale, and abundant natural resources (natural gas, iron ore, and coal). Wage rates, especially after the depreciation of the ruble, are extremely low. World Steel Dynamics estimated in 1997 that if some former Soviet steel plants restructured, they could be the lowest-cost producers in the world.

Since 1992, Russia has, on average, produced twice as much finished and semifinished steel as it has consumed. In 1998, this figure was 224 percent.<sup>18</sup> In 1997, the United Nations estimated that despite growing export volumes in recent years, overcapacity in Russia and Ukraine amounted to 20–30 million MT, or 16–23 percent of total capacity.<sup>19</sup> A recent report on the Russian economy described 20 percent of Russian steelmaking equipment as nonviable.<sup>20</sup>

As the 1990s progressed, there was an absence of real restructuring in the Russian steel industry and a growing gap between the levels of steel production and domestic consumption. This gap, and the attractiveness of export cash earnings, compelled the Russian steel industry to turn increasingly to exports as an outlet for production that could not be consumed at home.

### A Lot of Exporting and Very Little Restructuring

Faced with rapidly falling demand for steel at home and reluctant to engage in real restructuring, Russian steel producers reached a point at which, for political and social reasons, they were unwilling to engage in further production or capacity cuts. In order to stay in operation, they began to export vigorously. As domestic consumption dropped more than 70 percent over the past decade, exports rose by roughly the same percentage.



**3-4. Russian Production, Exports, Imports, and Consumption: Finished and Semifinished Steel**

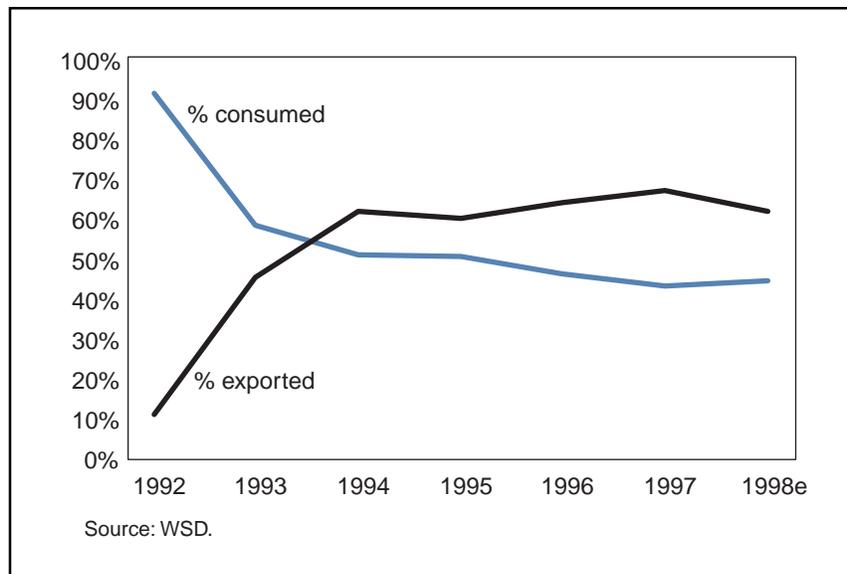
Russia went from a net importer of nearly 12 million MT in 1990 to an exporter of 22 million MT in 1997 (Chart 3-4).<sup>21</sup> Thus, roughly 34 million MT of steel came on the world market that was previously consumed domestically.

More than 20 million MT of Russian finished and semifinished steel have been sold in export markets every year since 1994. The percentage of Russian steel production that has been exported—approximately 60 percent—is unusually high (by international standards). For the large firms, the percentage of production exported is even greater. Sixty-seven percent of

Russian finished and semifinished steel was exported in 1997<sup>22</sup> (Chart 3-5). Other major steel-producing countries do not come close: in 1997, Brazil, Korea, and Japan exported 38 percent, 25 percent, and 23 percent of their production, respectively.<sup>23</sup> Steel exports have provided Russian companies the needed cash to stay in operation. Exports have also been a valuable source of foreign exchange. In recent years, exports from the ferrous metals industry accounted for more than 9 percent of Russian total foreign exchange receipts.<sup>24</sup> Steel has been the number one Russian manufactured export product, right behind exports of oil and gas, which are the country's top exports.<sup>25</sup>

While much of Russia's steel production has the long-term potential to be internationally competitive, the over-reliance of Russia on exporting its steel production has to be examined closely in the context of normal steel industry economics. It has been estimated that almost two-thirds of steel produced throughout the world is consumed domestically. Similarly, it has been estimated that only 15 percent of

steel is traded between the world's major trading regions.<sup>26</sup> The reason given for the low percentage of steel exported is that shipping costs for steel are generally very high in relationship to the value of the shipped product. In other words, steel simply does not travel well.<sup>27</sup> While some Russian steel companies are favorably located for exporting (*e.g.*, Severstal and Novolipetsk), others are clearly not (Magnitogorsk, for example, is more than 2,100 miles from the nearest port).<sup>28</sup>



**3-5. Percentage of Production Exported vs. Consumed:  
Finished and Semifinished Steel**

## Roadblocks to Reform

The two initial economic reform measures undertaken by Russia, price deregulation and privatization, were widely viewed by Western economists as the prerequisites for company and industry restructuring. The deregulation of prices would allow the economy to allocate resources appropriately according to their most profitable use, and privatization would encourage private profit maximization. However, these two policies have not led to the real restructuring of companies.<sup>29</sup>

### Price Deregulation

With the breakup of the Soviet Union and the emergence of Boris Yeltsin, the initial steps toward a market economy were taken. In early 1992, the first step was to deregulate prices—except for certain goods and services such as gas and electricity provided by monopoly suppliers. The freeing of prices led to drastic price increases across the economy. It was thought that the deregulation of prices, along with a tight money supply, would lead to a decline in industrial production, company restructuring, a rash of bankruptcies, and very high unemployment. The intended shock to the economy, however, did not occur.

- There were no mass bankruptcies or layoffs in 1992. Instead, companies continued to produce regardless of customer demand or ability to pay. Rather than cut costs in the face of raw material price increases, companies raised their own prices. With companies unable to pay for inputs, inter-company debt ballooned and barter transactions became common. By western standards, according to one source, 90 percent of companies were bankrupt.<sup>30</sup>
- Attempts to deregulate energy prices were rebuffed.<sup>31</sup>
- Complaints by industry about tight money led to the government issuance of 200 billion rubles in credits.<sup>32</sup>

In the end, the managers of the state-owned companies—who wanted to maintain their privileged positions and who were ill-prepared to function in a normal market economy—prevailed.<sup>33</sup> Companies had created a “virtual economy,”<sup>34</sup> which allowed them to continue to operate.

## Privatization

After price deregulation came privatization. Due to earlier reforms that devolved central authority, the government had already lost control over companies to their managers, employees, and others. These groups had to be mollified for any privatization plan to be approved.

The final privatization plan reflected the necessary political compromises needed to win approval. Perhaps the most important and far-reaching compromise was made on the question of employee ownership. Originally, the plan was to give workers and managers no more than 25 percent ownership of their plants free of charge. The remainder would be bought by outside investors who would undertake the restructuring of the companies. Instead, the majority of the companies were partly given away and partly sold to workers and managers at significant discounts (up to 30 percent).<sup>35</sup>

Under this final plan, privatization did not have the intended effect of attracting strategic investors, Russian or foreign. In the steel industry, over half of the companies' shares were retained by employees and management, with only a small portion going to outside investors or retained by the government. The workers' shares were, to a large extent, later purchased by trading companies, other Russian investors, or company management.<sup>36</sup>

Because privatization preceded the creation of a proper framework of corporate and bankruptcy law, the new company owners could abuse the rights of minority shareholders and avoid the payment of bills, taxes, and wages. As the European Bank for Reconstruction and Development (EBRD) stated,

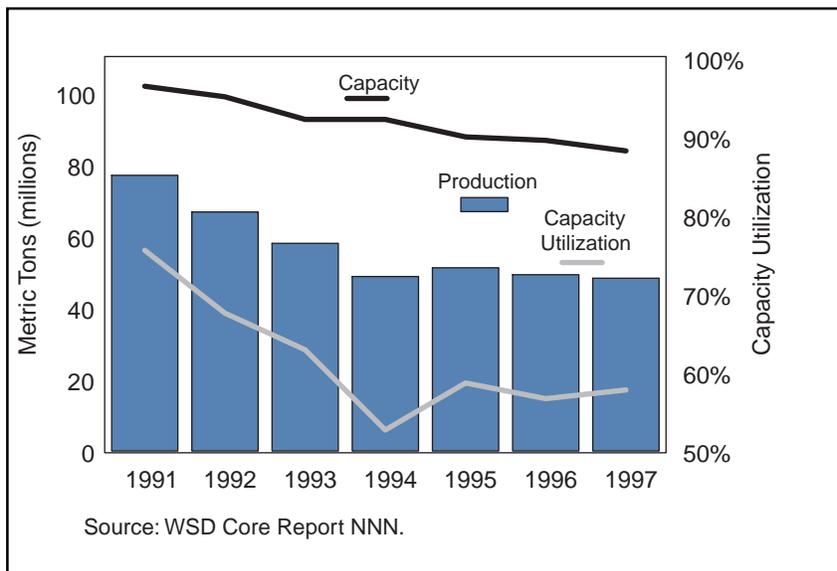
the consequences of the privatisation strategy adopted in Russia have been highly adverse for the governance of enterprises and the allocation of resources, not least because of the clear failure to break the political constraints on restructuring and company closures.<sup>37</sup>

### Need for Long-Term Restructuring and the Government's Response

While capacity and production have been cut and new equipment has been installed in the Russian steel industry, these actions have been insufficient when measured against the scope of the needed changes.

Although the Russian steel industry and government have focused on the installation of new equipment,

uneconomic capacity has been maintained. Despite the 70 percent drop in domestic demand, neither production nor capacity has been reduced commensurately. Between 1991 and 1998, production declined 43 percent and capacity was cut by 18 percent (*Chart 3-6*).<sup>38</sup> As a result, capacity utilization is very low, 40 percent of Russia's crude steel production capacity has not been utilized since 1994.



**3-6. Russian Gross Crude Steel Capacity, Production, and Utilization**

Because of the drop in demand, the prevalence of obsolete equipment, and the low level of productivity, analysts have been advocating the radical

restructuring of companies and predicting the ultimate closure of a number of the small and medium-sized steel makers.<sup>39</sup>

**Government Plan.** Recognizing the need for change in the steel industry, the Russian government approved a program for the industry in 1993. The Federal Program on the Re-equipment and Development of Metallurgy of Russia, provided a relatively stark picture of the state of the industry. It pointed out that the traditional means of raising production levels through the consumption of more and more raw materials, rather than by increasing production efficiency, had led to 60 percent of Russian steel being produced on obsolete equipment. This, in turn, led to only 10 to 15 percent of production being internationally competitive. Nowhere in the plan was there a discussion of real restructuring focusing on long-term viability, or the need to close uneconomic productive capacity; instead, the problems of the industry were seen as technical ones that could simply be remedied with the installation of new equipment.<sup>40</sup>

### **Prerequisites for Real Restructuring**

Most analysts agree that a different approach was needed. Strategic foreign or domestic investors and clear direction from a single shareholder or group of shareholders has been highlighted by commentators as the necessary starting point for change. The management that took over generally had no interest in, and often lacked the ability to, restructure their companies effectively.<sup>41</sup> Most workers saw real restructuring as a threat to their job security. Most managers tended to focus on production and employment, just as they had under the Soviet system.<sup>42</sup>

Without outside strategic investors or dominant new owners, there was no push for deep restructuring. Foreign investment, in particular, might have addressed the shortage of expertise in financial management and marketing. As a result, while the Russian steel companies reduced production and installed new equipment, most did not focus on developing new products; implementing new management, marketing, and business strategies; or reducing employment, *i.e.*, the type of restructuring that would ensure their long-term viability.<sup>43</sup> To move the restructuring process forward, the Russian steel industry has needed a business orientation, the will to rationalize, and foreign investment.

**Business Orientation.** A management consulting firm with experience in the Russian steel industry has suggested that real restructuring should focus on “long-term viability.” This would include:

- Business profitability and a sound balance sheet structure.
- The ability to fully meet customer needs.
- The ability to compete with international steel makers using world-class best practices.

When judged against these standards, few—if any—of the Russian steel companies were properly positioned.<sup>44</sup>

**Will to Rationalize.** Resistance to change in the Russian steel industry was due to social concerns and the long-standing emphasis on production. For example, one of the top three steel companies produces most, if not all, of the steel for its long products with obsolete open hearth technology. A management consulting firm hired by the company recommended that this production line be closed down. The company rejected the recommendation because the company was “socially oriented;” in other words, the resulting loss of jobs would be unacceptable. In 1998, approximately 178,000 MT of this company’s long products were exported at a loss.<sup>45</sup> The conclusion drawn from this example is clear: the resistance to real restructuring has meant more steel exports than would have occurred under normal market conditions. (It should be noted, however, that the larger companies that had the greatest amount of exports to the United States have probably made more changes than the Russian steel industry as a whole since the breakup of the Soviet Union.)

**Foreign Investment.** In the long term, Russia will be in direct competition for investment capital with emerging markets throughout the world.<sup>46</sup> Thus far, foreign investment (all industries) in Russia has been very limited, totaling under \$20 billion (cumulative) through 1998.<sup>47</sup> On a per-capita basis, direct foreign investment in Russia trails far behind Eastern Europe, especially Hungary and Czechoslovakia.<sup>48</sup> Factors inhibiting foreign investment in Russia include political and economic instability; the lack of solid corporate governance laws; and impractical trade, tax, and investment regulations. Reforms in each of these areas are necessary for Russia to balance its risk/return profile (*i.e.*, lower the risks to be commensurate with potential returns) and foster foreign investment.<sup>49</sup>

## Survival Tactics

Despite all that has happened in the last decade and the need for real restructuring, no steel plants were closed and no workers were laid off.<sup>50</sup> Although the Russian steel companies received little direct government assistance, they were able to continue operating in an economic environment dominated by barter, cheap inputs, unpaid taxes, wages and supplier bills, and weak bankruptcy laws. To the extent that the domestic market did not absorb all the products that continued to be produced in this environment, steel products were sold on the global market at soft prices.<sup>51</sup>

## Direct Government Assistance

In its 1993 plan, the government recognized that it could only provide 10 percent of the \$7.4 billion investment identified as needed over six years. Eighty percent would have to come from the companies and the remaining 10 percent from other sources.<sup>52</sup> In the end, the government provided just over 2 percent of the funds invested between 1992 and 1998.<sup>53</sup> Direct federal government outlays have been provided in the form of tax breaks related to export sales, tax deductions for investment, lower customs duties and rail rates, and in some instances, other tax benefits.<sup>54</sup>

Although the amount of direct government outlays by the Russian government has been relatively small, other formal, government assistance has been provided to the Russian steel companies. This type of aid is generally not included in the assistance figures provided by the Russian government.

- The most prevalent kind of other assistance has been loan guarantees, which have been provided by the federal government to several companies (*i.e.*, Magnitogorsk, Oskol and Nosta).<sup>55</sup> Regional governments have also been known to provide loan guarantees.<sup>56</sup>
- Additionally, specific decrees have been issued that benefit particular companies undertaking certain investment projects. For example, in 1997, Magnitogorsk began construction of a new cold-rolling mill. The production from this mill was intended to replace imported cold-rolled sheet. To assist in the construction of this mill, the government issued a decree which provided for tax deferrals, tax and customs duty benefits on equipment imports, lower freight rates, and an exemption from the requirement to exchange 75 percent of foreign currency earnings.<sup>57</sup>

## Input Pricing and the Story of “Tri Tolstyaka”

Although the amount of direct government outlays and loan guarantees by the government was not significant, Russian steel companies benefitted from other forms of government assistance. Most important in this regard was the pricing of gas, electric energy, freight and coal. The costs for these items were estimated in 1997 to account for more than 50 percent of the cost of producing steel in Russia.<sup>58</sup> The gas, electric, and freight providers—which remain government-owned or controlled companies—are often referred to as the “natural monopolies.”

In the 1993 steel development plan, the Russian government recognized the problem that deregulated prices would cause:

Under the conditions of introducing free prices for coal, electric power carriers and transport services and raising them to world market levels, certain metallurgical industry enterprises are becoming noncompetitive and unprofitable.<sup>59</sup>

Although the Russian steel producers have complained about the prices charged by the natural monopolies, which have risen sharply since 1991, input pricing was “a key source of indirect subsidization of the enterprise sector.”<sup>60</sup> As one expert put it: “The Russian economy remains a hyper-industrialized system composed of enterprises that would not be viable in a market economy, *supported by transfers from energy and raw materials sectors*” (emphasis added).<sup>61</sup> This indirect subsidization has contributed to the exportation of steel. One analyst of the Russian economy called Russian steel exports “embodied energy.”<sup>62</sup> Another analyst said that when Russia exports steel, it is really exporting “cheap gas and electricity.”<sup>63</sup> According to remarks by Russian President Vladimir Putin, electricity prices in Russia are three to five times cheaper than world prices.<sup>64</sup>

The below-market price structure for inputs was another holdover from the Soviet period. The Soviet economy set domestic prices separate and apart from world market prices and shifted the price balance in favor of the defense and heavy industries, which included steel. It underpriced energy and raw material inputs so that high-priority sectors would appear to have lower costs of production and higher productivity. This Soviet price structure was the norm for the government, suppliers, and especially the industries that consumed the undervalued inputs, including the steel industry.

The sharp growth of input prices in the early 1990s was widely viewed in Russia as the government’s failure to effectively control the pricing of the so-called “three fat boys” (*tri tolstyaka*):<sup>65</sup> Gazprom, the natural gas monopoly; RAO UES, the electric energy monopoly; and MPS, the railroad company. As detailed below, many of the input prices were kept below world market prices (*i.e.*, natural gas) or have been preferentially provided to the steel industry (*i.e.*, freight).

**Gas and Electricity.** In August of 1998, the government provided 50 percent discounts on natural gas and electricity bills paid in cash.<sup>66</sup> While designed to shift enterprises from barter to cash payments, this also meant that the price of natural gas in Russia was 15–25 percent of the price in the United States.<sup>67</sup>

A financial analysis of the regional electric suppliers in Russia indicates that profitability has not been the primary concern; instead, the sector was “increasingly used as [a] source of subsidies to inefficient industries” whose role “remains that of supporting the federal government’s industrial and anti-inflationary policy rather than maximizing its own earnings and asset values.” Specifically (according to the same report), effective cash rates on electricity have been much lower than the published tariffs for Russian *energotsentrals* (regional electricity suppliers) and those of international counterparts.<sup>68</sup>

**Freight.** In 1998, the Russian railroads lowered freight tariffs by an average 18 percent. According to Nikolai Aksenenko, the Rail Minister, some metal companies, including steel producers, received “exclusive tariffs which enabled them to cut their costs.” Despite this rate cut, the steel producers sought (but did not receive) an additional 40 percent discount for metal products.<sup>69</sup> Moreover, it has been reported that special rates are in place for certain steel exports.<sup>70</sup> As noted earlier, due to the poor location of many of the Russian steel producers, such as Magnitogorsk, low freight rates are vital if many Russian steel companies are to be competitive in world markets.

**Coal.** In 1998, the pricing of coal in Russia may have also been preferential. In the beginning of the reforms, the government heavily subsidized the coal industry to keep prices down and restructure the industry. The coal sector has been the second largest recipient (after agriculture) of direct budget subsidies in the country.<sup>71</sup>

The precise degree to which the direct subsidization of the coal industry results in cheaper prices for steel producers located throughout Russia, however, is difficult to calculate. One estimate is that recent prices for coal reflect a 10 percent subsidy (down from 45 percent in the early 1990s).<sup>72</sup> It was also reported in 1997 that Russian steel producers negotiate a price with government-owned coal companies that is close to a market price and pay 80 percent of that price; the “other 20 percent is paid for by the government.”<sup>73</sup>

### **Barter Economics**

The Organization for Economic and Cooperation and Development has commented that the pricing of Russian and Ukrainian steel exports was often “uneconomic” due to, among other things, the use of barter and the orientation toward production rather than profits.<sup>74</sup> Many steel companies lost money on exports (prior to the depreciation of the ruble). According to one investment firm in 1998, “Exports are unprofitable, but they remain the main source of cash for most Russian steel plants.”<sup>75</sup> Yet the companies continued to export because of market distortions, such as the pervasive use of a complex system of cashless transactions and nonpayments of debts that two specialists on the subject, Clifford Gaddy and Barry Ickes, describe as Russia’s “virtual economy.”<sup>76</sup>

Barter in Russia has a long history, with origins in the pre-revolutionary period. It was also widely used during the Soviet era to cope with the inefficiencies of central planning. In fact, the closed-circuit barter chains employed in Russia and the ones used by Soviet managers to trade with one another for goods not provided in their planning allocation are very similar.<sup>77</sup>

Barter is inherently inefficient because it raises transaction costs and leads to the masking of the true value of output, which tends to be substantially below what barter prices indicate.<sup>78</sup> Gaddy and Ickes quantify the price distortion based on the type of transaction: barter (goods-for-goods) prices may be overstated by a factor of two or three, while the price of goods paid via promissory notes (or *veksels*) may be inflated by a factor of five.<sup>79</sup>

A Russian commission was created to analyze the problem and made the following conclusion in 1998.

An economy is emerging where prices are charged which no one pays in cash; where no one pays anything on time; where huge mutual debts are created that also can't be paid off in reasonable periods of time; where wages are declared and not paid; and so on. ... [This creates] illusory, or “virtual” earnings, which in turn lead to unpaid, or “virtual” fiscal obligations, [with business conducted at] nonmarket, or “virtual” prices.<sup>80</sup>

Barter was widely used in the Russian economy as a means of payment (*see box, next page*).<sup>81</sup> Numerous reasons have been given for this. Hyperinflation in 1992–1994 wiped out the working capital of companies. Tight monetary policy implemented by the Russian government led to a significant contraction in the availability of credit to the enterprise sector. The result was that most Russian firms were effectively cut off from access to working capital finance. Barter transactions as a percentage of industrial sales rose from less than 10 percent in 1992 to nearly 50 percent at the end of 1997 (*Chart 3-7*).<sup>82</sup>

**Government Tolerance.** While these liquidity problems may have encouraged barter, its continued use could not have been maintained without the government’s tolerance for barter for taxes and inputs (such as natural gas, coal, electricity, and transportation services).<sup>83</sup>

The government’s willingness to sanction barter largely explains the dramatic increase in its use and the ability of so many unproductive enterprises to stay in operation.<sup>84</sup> To understand this willingness, it is important to examine the difficult position that both the federal and regional governments face in Russia.

When prices began to escalate after price deregulation in January 1992 and company debts were mounting, regional governments worked to protect local companies and maintain critical services by resorting to barter.<sup>85</sup> According to one expert, the federal and regional governments entered into a struggle for sovereignty over money and the former was unable to assert the authority over the latter necessary to establish the ruble as the only means of payment.<sup>86</sup> Regional governments became creative in their attempts to keep companies afloat and avoid social unrest; barter provided the best means to employ these measures. The actions by the regional governments undermined the power of the federal government by allowing barter to displace the cash economy.<sup>87</sup> Addressing this problem will be important to the federal government's plans to rein in the implicit subsidies granted by the regional governments or to collect taxes in cash.

The regional governments approached barter with a permissive attitude due to the legacy of the Soviet regime in which companies did not go out of business. Many local politicians have been willing to do whatever is necessary to keep enterprises operating and workers employed. This is especially relevant in the metallurgical industry in which more than 70 percent of the companies are "city-forming" (*i.e.*, the company was started by the central planners and a city was formed around it).<sup>88</sup>

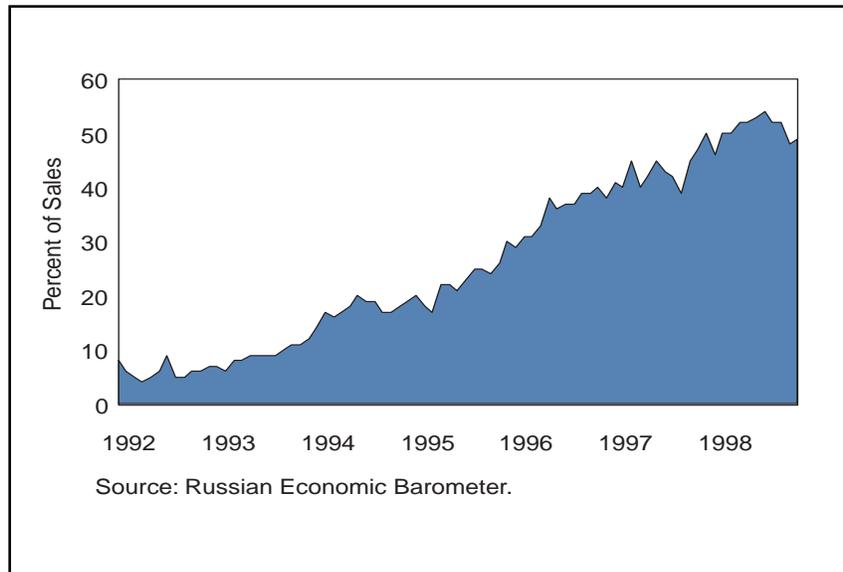
***Effect on Restructuring.***

Complex barter arrangements were the primary mechanisms for local and regional governments and the natural monopolies to provide implicit subsidies to companies struggling to survive (in 1997, almost 80 percent of all domestic steel sales were performed through barter<sup>89</sup>). Implicit subsidies disbursed through barter were also

***How Barter Works***

Two examples help illustrate how the barter system works. The first, given by Ledeneva and Seabright (1998), starts with a gas equipment company that owed taxes to the local government. Instead of paying the taxes, it supplied equipment to a gas drilling operation which provided gas to the steel company Mechel. Mechel, in turn, supplied steel to the Nizhny Novgorod automobile plant, which supplied chassis for buses to the Kurgan bus plant. The Kurgan plant then supplied buses to the Kurgan city government. Ultimately, the city received buses instead of taxes (regardless of whether the buses were needed), and all the enterprises in the barter chain maintained production (regardless of market demand).

A second example of barter involves one of the big three steel producers, Magnitogorsk. Magnitogorsk had accumulated energy debts with the local power company. To settle a portion of the debts, the power company worked out an arrangement with the Chelyabinsk Tractor Plant which agreed to take 8 million rubles' worth of steel from Magnitogorsk. The tractor factory would then pay the power company in utility vehicles, which the power company would use to pay its creditors.



**3-7. Russia: Share of Barter in Industrial Sales**

*For steel, the percentage of barter sales was even higher. In 1997, barter transactions accounted for almost 80 percent of all domestic steel sales.*

potentially more distorting than other government assistance subsidies such as loan guarantees and tax benefits.<sup>90</sup> Preferential barter deals that created an unlevel playing field have been one of the most significant inhibitors to restructuring in the Russian steel industry. The McKinsey study of the Russian economy concluded:

Many of the [small] and a few of the [medium-sized steel] plants are not viable and can not operate without outside help. This support is provided in the form of an implicit government subsidy delivered via barter deals with suppliers and customers who are forced by the local government to deal with the plant. For example, [the] local government can provide cheap gas because it controls local gas distributors. It can also initiate local projects (*e.g.*, a medium size Russian city is now building a metro) where participants receive steel from the local plant in exchange for tax waivers.<sup>91</sup>

The use of barter transactions kept dozens of Russian steel producers operating despite their noncompetitive and unviable positions. In a normal market economy, these companies would go out of business and viable, healthy companies (generally, the larger ones) would be able to expand production and gain market share. This, in turn, would increase efficiency throughout the industrial sector and move the economy back toward cash. Experts agree that in order to reduce barter the government needs to promote real competition.<sup>92</sup> Rather than encouraging companies to become more competitive in the marketplace, the government has tolerated barter, which hinders healthy competition and delays the need for restructuring. Gaddy and Ickes write:

The [virtual economy] has a number of significant negative consequences. ... The effect on enterprise restructuring is the most obvious. Even those admittedly few enterprises that probably could restructure and become viable in the marketplace have not done so because it would be costly and because they can muddle along as they are.<sup>93</sup>

***Barter's Role in Encouraging Exports.*** Because the large and more competitive Russian firms cannot compete for a greater share of their own domestic market, they must turn (in part) to export markets to sell their products. Moreover, to the extent that domestic steel purchasers could not pay in cash, the only source of cash for larger steel producers was export markets. Because all companies must have a minimum level of cash to cover certain costs (*e.g.*, wages and, to a certain extent, taxes), producers ended up exporting for cash, and the price they obtained for their steel was not necessarily a primary concern. As Gaddy and Ickes state, "In fact, many Russian exports lose money. But for participants in the virtual economy, the goal of exporting is not profit, but cash. The losses they incur are considered a necessary cost of staying in business."<sup>94</sup>

### **Nonpayment of Utility Bills, Taxes, and Wages**

Russian steel companies also kept operations going by not paying their bills. Suppliers and taxes were routinely not paid or paid late. Companies in really bad shape also chose not to pay their workers.

This practice has its roots in the price deregulation and tight money supply policies of the early 1990s. These policies were expected to drive the least viable companies out of business. Instead, companies began to issue each other credits and accumulated ever increasing amounts of debts. As one commentator put it, "they just agreed not to pay each other's bills."<sup>95</sup> The problem was endemic to the economy:

- Late payments to suppliers in four key sectors of the economy rose from 553 billion rubles in January 1997 to more than 780 billion rubles by the end of the year.<sup>96</sup>
- Tax arrears represented almost 5 percent of the GDP.<sup>97</sup> In absolute terms, arrears to the federal budget at the end of 1997 were more than 100 trillion rubles.<sup>98</sup> Other arrears to the federal government (*e.g.*,

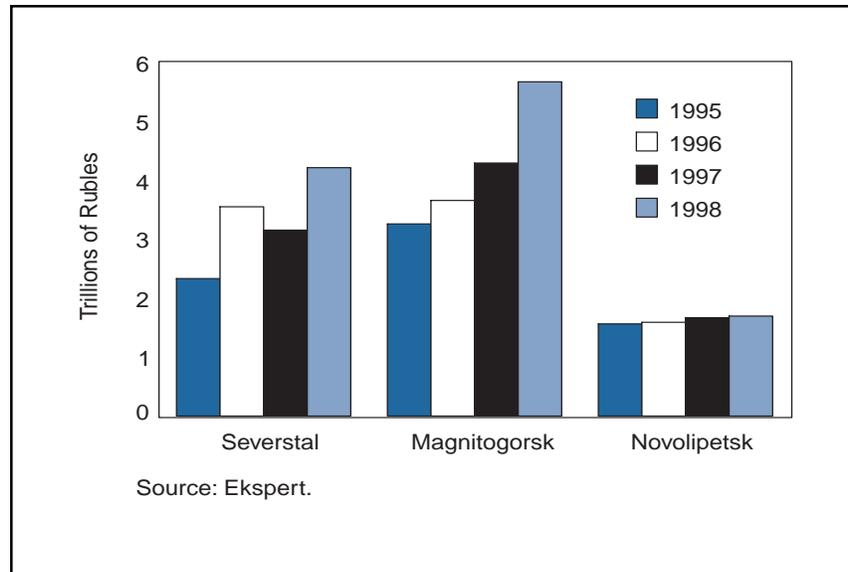
pension payments) reached almost 200 trillion rubles.<sup>99</sup>

- Wage arrears were also staggering. At the end of 1997, economywide wage arrears amounted to 50 trillion rubles, only 10 percent of which was due to government wage arrears.<sup>100</sup>

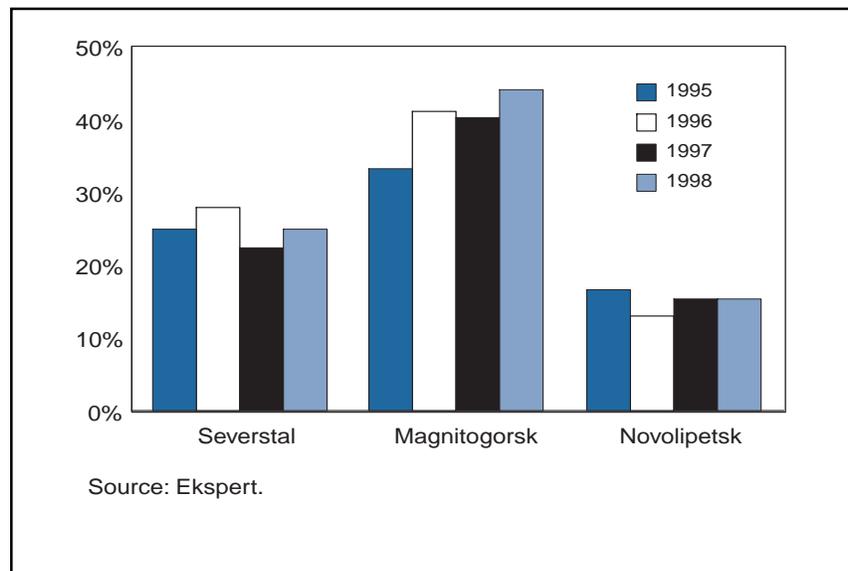
**Supplier Bills.** For the Russian iron and steel industry, overdue payments to suppliers totaled over \$1.2 billion.<sup>101</sup> This figure represented about 55 percent of all outstanding bills and was greater than the overdue receivables owed to the industry by its customers.<sup>102</sup> The amount of money the top three steel producers owed increased by more than 60 percent from 1995 to 1998, reaching 28 percent of their 1998 sales (*Charts 3-8 and 3-9*). Of the top three Russian steel companies, Magnitogorsk was in the worst position; the amount it owed to suppliers grew 73 percent from 1995 to 1998, equivalent to 44 percent of its 1998 sales.

For the mid-sized steel companies, the picture was even more bleak. Payables to suppliers increased by more than 400 percent on average from 1995 to 1998, reaching an average 107 percent of their 1998 sales (*Chart 3-10*). Four of the six companies in this category owed their suppliers more than 100 percent of their net sales (*Chart 3-11*).

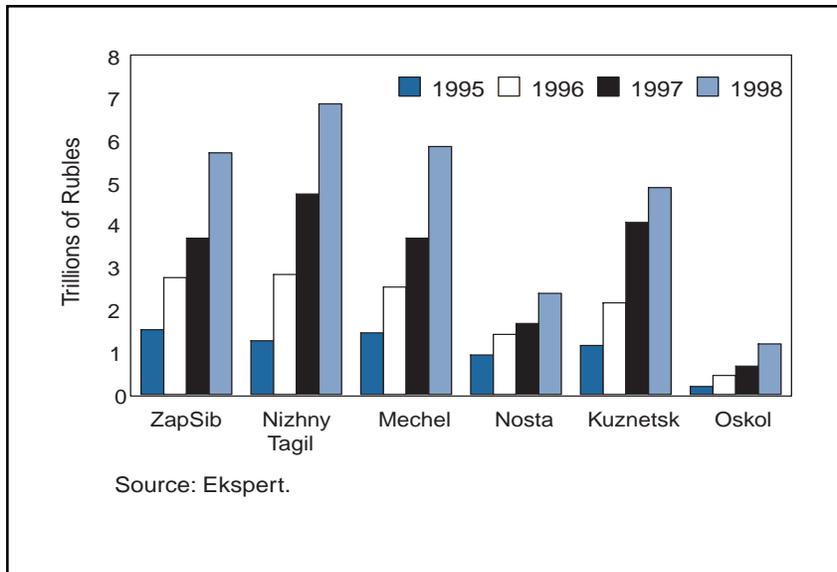
The amount of debt (including overdue debt) left little doubt that many of these outstanding bills from suppliers would not be paid any time soon. Suppliers to the steel industry seemed to realize that many of their receivables would never be collected. For example, the collection rate (including barter) of total receivables by the regional electric companies was between 60 percent and 90 percent, with cash collections usually not exceeding 15 percent. The experience of some regional electric companies in their attempts to resell their receivables indicates the likeliness of repayment. Their resale efforts either found no interest at all or were sold for roughly 25 percent of face value.<sup>103</sup>



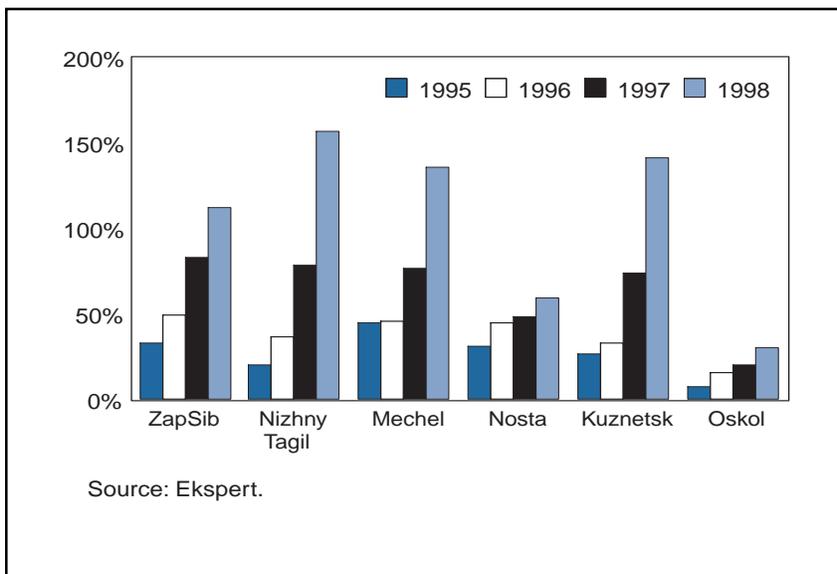
3-8. Payables to Suppliers, Top Three Companies



3-9. Payables to Suppliers as Percent of Net Sales, Top Three Companies



3-10. Payables to Suppliers, Mid-Sized Companies



3-11. Payables to Suppliers as Percent of Net Sales, Mid-Sized Companies

The suppliers of raw materials and energy tolerated this situation for the same reason they complied with government-imposed low prices on their products and services: they were supported by the government or had export privileges. Additionally, suppliers, such as the regional electric companies, were often dependent upon local industries as their only source of cash, fuel, and other goods needed to remain in operation, and “have little incentive to take an adversarial approach.”<sup>104</sup>

**Government Taxes.** Taxes have also gone unpaid. At the end of 1998, according to one analysis, Russian iron and steel companies owed the government roughly \$836 million in taxes.<sup>105</sup> Moreover, the amount of taxes a company paid was essentially negotiable. The McKinsey study makes the point that the nominal tax burden in Russia is 55–60 percent of GDP, while planned revenues are 35 percent and actual cash revenues are approximately 20 percent. The difference between what was supposed to be collected and what was actually collected in cash left a lot of room for unequal tax payments among companies.<sup>106</sup>

The fact that tax arrears grew while production increased sheds light on the unique economic environment in which Russian steel companies operated. In the words of one analyst, “the state’s systematic failure to force large enterprises to pay [their taxes] amounts to a massive subsidy to those powerful or resourceful enough to negotiate amnesties and settlements.”<sup>107</sup>

- From 1992 to 1995, Magnitogorsk built-up a substantial tax liability to the federal government. In 1996, Magnitogorsk—apparently along with much of the rest of the industry—was so far behind in its taxes that bankruptcy proceedings were threatened.<sup>108</sup> After negotiations with the government, the company was allowed to pay what it owed over several years at a “very, very low” interest rate.<sup>109</sup> While Magnitogorsk was eventually able to pay off its tax debt, after the ruble depreciation made

exports extremely profitable, the benefit of being able to pay off an old debt in cheaper rubles was presumably substantial.

- In 1998, the tax arrears and other government obligations of mid-sized steel companies continued to grow at phenomenal rates. For instance, between 1995 and 1998, Mechel's government debt grew 230 percent; ZapSib's 490 percent; Kuznetsk's 530 percent, and Nizhny Tagil's more than 600 percent.<sup>110</sup>

**Wages.** Companies' wage bills have usually been the last to go unpaid. Wages are a relatively small part of a Russian steel company's costs, usually accounting for approximately 10 percent of the total cost of production.<sup>111</sup> Yet prior to and immediately after the ruble depreciation, many Russian steel companies were behind on their wages.<sup>112</sup>

### **Weak Bankruptcy Laws**

The absence of an effective exit mechanism in Russia for nonviable enterprises was another major factor allowing many steel companies to continue operations while avoiding restructuring.

In 1997, there were approximately 4,600 bankruptcy filings in Russia,<sup>113</sup> compared to 300,000 annually in the United States, 100,000 in Canada, and 15,000 in Poland. According to the Federal Bankruptcy Commission, more than 51,000 firms had payments in arrears, and three-quarters of those were technically bankrupt, but only 2,000 firms were bankrupted in 1997.<sup>114</sup> Various sources conclude that, "a large and well-connected company is practically impossible to shut down. Bankruptcy laws are still weak, and companies that have been declared insolvent continue to operate."<sup>115</sup> As stated by the EBRD: "a credible bankruptcy threat still does not exist. The bankruptcy process itself is often used as another channel for asset-stripping, with the appointment of lenient administrators."<sup>116</sup>

**Current Bankruptcy Proceedings.** The first Russian bankruptcy law was passed in 1993. When a company exceeds a certain amount of debt, its creditors are entitled to file for bankruptcy proceedings. A filing results in formation of a "creditors council" (determining which debts are to be paid off first) and the freezing of the company's funds and monetary transactions.<sup>117</sup> Subsequently, the court introduces external management, generally for a period of up to six months. The job of the outside team is to survey the company's books and recommend whether the firm should be shut down.<sup>118</sup>

**Role of Local Governments.** Local government officials generally have not viewed company closure and asset liquidation as an option.<sup>119</sup> In practice, they instead used bankruptcy proceedings to provide a fresh start for a company and to make it "possible to change the managerial team, remove negligent owners, bring in professionals, and carry out a program of financing normalization of the enterprise in the interests of the collectives, the territories, and the creditors."<sup>120</sup>

While amendments to the bankruptcy law introduced more incentives for companies to legitimately declare bankruptcies and for creditors to be repaid,<sup>121</sup> the amended law failed to address the fact that Russia's nonpayment dilemma was more of a political than an economic problem. *The Economist* reported:

The key obstacle has always been the reluctance of local authorities to send firms into bankruptcy. This is mainly because regional governments come a lowly third on the creditor's list, after employees and the federal budget. And if the region does agree to close down an enterprise, it has to support and find jobs for unemployed workers. Easier to leave the factory open under outside management and hope for a state bail-out.<sup>122</sup>

The federal government's record has not been much better (*see box, next page*).

**Steel Industry Examples.** The two most noteworthy examples of bankruptcy in the Russian steel industry are Kuznetsk and ZapSib (*see box below*).<sup>123</sup> Both companies are under the control of external management. While the companies' financial situations remain severe, neither has been recommended for a shutdown.<sup>124</sup> Between 1995 and 1998, ZapSib's and Kuznetsk's short-term debt (*i.e.*, debt that in theory must be paid off within one year) grew 325 percent and 442 percent, respectively, reaching almost 200 percent of their annual sales. The companies' debt-to-equity ratios were some of the worst among the nine largest Russian steel companies. For both companies, this indicator increased more than four-fold since 1995.<sup>125</sup>

### ***The Federal Government's Record***

The federal government has been unwilling to use bankruptcy laws to carry out needed closures. It drew up a list of the fifty largest tax debtors, and the top twenty were ordered to pay up or be declared bankrupt. When the deadline came, no bankruptcy action was taken.

Recently, the federal government passed a law to protect companies of strategic significance from bankruptcy and to stop the initiation of bankruptcy proceedings against tax debtors that fall into this category.

The magnitude of these financial problems would likely result in the closure or radical restructuring of a company in the United States. In Russia, however, these two companies are continuing operations and have plans to increase their production. Rather than having their funds frozen or restricted, their management continues to enter into new transactions and run the companies into greater and greater debt.

### ***The Tale of Two Companies***

ZapSib is a relatively modern steel company located in the middle of Siberia with no sizable domestic market nearby and several thousands of miles from the nearest export port. Beginning in the mid-1990s, ZapSib's debt to suppliers—the government-owned electric and rail companies—began to accumulate, recently reaching 5 billion rubles. Since 1997, ZapSib has been under bankruptcy proceedings.

At one point, the regional government stepped in as a guarantor of Zapsib's debts in an effort to prevent the company's closure. In the process, the Siberian Mining-Metallurgical Company (owned by the regional and city governments) was formed and took effective control of the company. Reportedly, this company has been engaged in "asset-stripping" (*i.e.*, selling raw materials to ZapSib at high prices and purchasing finished products from ZapSib at low prices).

Kuznetsk is Russia's largest producer of rails and is located in the same region as ZapSib. Kuznetsk has been the center of numerous power struggles between the regional government and Kuznetsk's external manager, the Moscow-based investment company MIKOM. In what is seen as a temporary victory for the regional government, the regional court removed Kuznetsk's external management team, accusing it of "various kinds of abuses and violations of the region's interest." The impetus for the change, however, may have been MIKOM's plan to auction the company for \$350 million.

Regional authorities responded to this announcement with a publicity campaign culminating in a court decision to stop the auction and to oust the external management team. The government is reportedly helping to keep Kuznetsk afloat by purchasing rails at \$1,000 per MT (compared to a world market price of around \$400). Kuznetsk is reportedly also favored to supply a planned high-speed railway link between Moscow and St. Petersburg.

Ultimately, it appears that Kuznetsk and ZapSib are on the verge of renationalization rather than the restructuring, downsizing, or closure seemingly called for given their poor financial condition.

## Trading Companies and the Marketing of Russian Steel<sup>126</sup>

In the days of the Soviet Union, steel production was largely consumed at home. A small amount went to other countries in the Soviet bloc and an even smaller amount was exported beyond the Soviet sphere of influence. Material was exported in accordance with the desires of the politicians and planners in Moscow. The customer, price, packaging, and means of delivery were not the concern of the steel producer. The steel company's job was to produce larger and larger quantities of steel; other entities were responsible for determining end users, setting prices, and ensuring delivery. "Marketing" of steel was unnecessary and unknown.

With the drop in domestic demand following the breakup of the Soviet Union, producers turned to export markets to maintain production and keep people employed, but had little if any experience marketing or exporting. International trading companies saw potential in selling Russian steel. They started working with the big producers in the early 1990s. They took them to customers and taught them how to sell, package, and deliver their products. In return, these trading companies began to sell Russian steel to the world.

As managers and owners of the Russian steel producers became more sophisticated, some took personal advantage of their companies' ability to export. A former deputy director of one company summed it up like this: "The factory was set free to export, and everyone in management understood that in their own way."<sup>127</sup> The questionable schemes devised usually involved the producer selling steel at a low price to a Russian intermediary company set up by company management, often "off-shore." Intermediary companies would then sell to an international trading company at a significantly higher price.

- **Price formulation by the steel producers.** The price for much of the steel obtained in Russia and eventually sold on export markets tended to be significantly divorced from cost and profit considerations. Some steel producers may not have even known the true cost of producing their products. Most were not operating under hard budget constraints. Some may not have had a full understanding of the price levels in the various potential export markets. The pressing need for raw materials and cash also meant that the sales price was often less important than the need to secure the minimum amount of cash to sustain operating levels.

Some trading companies have also indicated that the Russian steel producers did not negotiate prices as aggressively as they could have, while others stated that the price paid for Russian steel was primarily determined by reference to other prices (*e.g.*, the going price for Russian steel would be based on a certain percentage of the price for Japanese steel).

- **Steel producers' lack of marketing skills.** Compounding these problems has been the continued lack of marketing skills exhibited by the Russian steel producers. As noted, "marketing" was unnecessary and unknown in Soviet times. In the words of one trader, "The Russians don't have a clue how to market their steel." One of the largest importers of Russian steel, summing up his experience, put it this way: "Everything is *nyet*."

Rather than researching their markets; exploiting niche markets; selling with the market; establishing specific, limited channels of distribution; controlling the prices at which their product are sold in each of the established channels; promoting their products; knowing their customer's customer; and focusing on meeting the needs of their customers over the long-term, the "marketing" done by Russian steel producers has been *ad hoc* at best.<sup>128</sup> On top of these problems has been a reluctance to change channels of distribution due to various self-enrichment schemes.

- **Channels of trade.** The channels by which Russian steel products made their way to the United States were numerous and often exceedingly complex. Steel from some of the top three producers in 1998 was

available through eight different channels, each with a different price. The most unusual channel was direct sales between the producer and end-user. Some sales first went through related intermediary companies and then onto normal international trading companies. Other sales were initially made by the suppliers of the raw materials, who may have sold to Russian intermediaries, who then sold to trading companies. Any particular transaction might involve multiple Russian intermediaries. The excessively low initial price at which steel could be obtained allowed even steel that went through multiple intermediaries to be sold at highly competitive prices.

- **Sales for Export by Input Suppliers.** The increasing use of barter to obtain inputs for steel production—due to the shortage of working capital—provided an opportunity for trading companies to acquire Russian steel. Steel producers increasingly provided steel to suppliers of energy, raw materials, and transportation services in lieu of cash payments. As a result, a large amount of all steel produced ended up in the hands of input and freight providers.

The coal, gas, electric, and railway companies were often ill-prepared to sell, no less market, the steel they received through barter. Some government-owned raw material suppliers, who obtained steel products through barter were in the same, if not worse, financial shape—they needed the cash and were, at times, not diligent in ascertaining the appropriate asking price in the interest of taking possession of an exportable product that could be sold for dollars.

In sum, the input suppliers did not have the time or the wherewithal to determine, and fight for, the best possible price for the steel products they had. Russian middlemen and trading companies were able to acquire this steel at very low prices, mark it up substantially, and still be able to sell it at below market prices throughout the world.

- **Enhanced bargaining position of international trading companies.** Trading companies capitalized on the Russian steel producers' shortage of working capital in other ways too.

For those steel companies unable to purchase or barter for raw materials, trading companies either directly provided the necessary inputs, loaned money to purchase the inputs, or prepaid for their sales order. If a producer reneged on a deal, the chances of getting one's money back were slim. Therefore, the risk involved was great. However, control over the acquisition and provision of raw materials gave the trading companies an inordinate amount of power when negotiating the price at which they obtained the finished steel.

Seeing both the desperate straits of many producers and an opportunity to make money, some trading companies bought stock in the Russian steel companies. Sometimes this resulted in the trading company having effective control over the steel producer. While this equity stake could have resulted in real restructuring, trading companies typically operate on shorter-term horizons given their reliance on commissions.

- **Middlemen markups.** Usually, international trading companies dealing in metals make 2.5 percent on their sales. For Russia, due to the higher risk involved, trading companies require a margin of at least 4 percent.<sup>129</sup> Some trading companies have estimated their markups in the range of 5 to 7 percent. These figures are only with respect to the international trading company involved in a transaction. As noted above, there are often other Russian intermediary companies involved.

While an analysis of the normal markup by these companies can get very murky, very quickly, the experience of one of the top three companies, Severstal, sheds some light on the issue. After reducing the number of intermediaries to one established, well-respected trading company per sale, Severstal has been able to raise its sales price \$20–\$25, or roughly 10 percent. Nonetheless, after the elimination of

these intermediaries, one source estimates that Severstal's export prices were still generally 30 percent below European prices.<sup>130</sup>

- **Trading companies' impact on trade flows.** Russian steel producers' heavy dependence upon trading companies to sell large quantities of steel had an impact on trade flows. Trading companies generally target the spot market that is willing to pay the most. As a result, relatively small changes in one market can lead to rapid shifts from one market to another. When the Asian crisis hit, for example, Russian steel was quickly diverted from the Asian to the U.S. market.

Examination of the export markets for the Russian steel producers demonstrates what happens when there is an over-reliance on trading companies. Rather than having relatively stable quantities going into relatively the same markets over time, the final market destinations of Russian steel have exhibited no consistent pattern. Given that Russia has become one of the largest exporters of steel in the world—selling more than 20 million MT of steel mill products a year—the potential is great for fluctuating volumes to disrupt world steel markets. The low prices at which Russian steel was often sold increased the level of instability.

### **Pre-Steel Crisis Rumblings: Russia's Export Options Narrow**

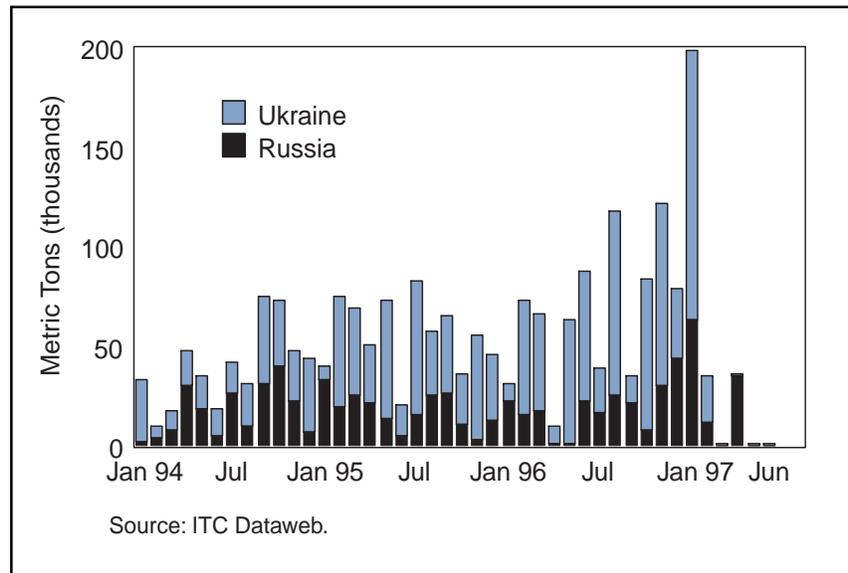
A number of trade actions taken by countries around the world, combined with the Asian financial crisis, gradually closed many of Russia's export markets. Trading companies began searching the world for potential markets and saw fewer and fewer available. The U.S. market stood out; the prices were good and the restrictions were few. Although plate exports had been limited due to dumping in 1997, the U.S. market was open for all other steel products.

- **European Union.** The first export market to comprehensively restrict Russian steel exports was the European Union (EU). Beginning in the 1970s, individual countries within the EU had established quotas for steel imports from the Soviet Union. In 1992, the EU restructured these national quotas into a unilaterally imposed EU-wide quota on Russian steel.<sup>131</sup> Three years later (1995), the unilateral quotas were replaced with the first EU-Russia agreement on steel.<sup>132</sup> This agreement limited Russia's exports of steel to the EU to 308,000 and 354,000 MT of finished steel products in 1995 and 1996, respectively.<sup>133</sup> The first agreement was renegotiated and extended in 1997 for another five years, with quota levels beginning at 841,000 MT in 1997 and rising to 928,000 MT by 2001.<sup>134</sup> Quota increases are conditional upon Russian progress in three specific areas: ensuring and increasing competition domestically among Russian steel producers, decreasing subsidies, and improving environmental protection.<sup>135</sup>
- **China.** Another major market for Russian steel has been China. According to Chinese import statistics reported in the World Trade Atlas, in 1996 China imported 4.7 million MT of Russian steel mill products, accounting for approximately 20 percent of Russia's total exports.<sup>136</sup> Up to that time and particularly in 1993 and 1994, China's construction boom was fueling huge demand and causing a shortage of Chinese steel. Since the early 1990s, China has increased steel production, and in the mid-1990s became the largest steel maker in the world. With production growing and the construction boom abating, China experienced a glut of steel. Steel imports into China dropped by approximately 58 percent in 1997 from peak levels in 1993. Russian steel mill imports into China dropped by 36 percent between 1996 and 1997 to less than 3 million MT.<sup>137</sup>
- **Other Asian markets.** In the early 1990s, the majority of Russian steel exports went to Asia due to strong regional demand and a shortfall in regional supply. However, between 1994 and 1998, demand in Asia began to taper off. With overall Russian exports growing, the percentage of Russian steel going to Asia began to decline. Specifically, the percentage of Russian rolled steel exports to Asia dropped from 64 percent in 1994 to 40 percent in 1998.<sup>138</sup>

Trade actions taken by Asian steel producers were a part of this decline. In 1996, antidumping probes in Taiwan, Indonesia, and South Korea against Russian steel producers of “H beams” and hot-rolled steel resulted in duties ranging from 15 and 19 percent.<sup>139</sup>

- **Around the world.** After years of escalating exports of low-priced steel from Russia, producers in other countries began to take trade actions. Since 1995, more than forty antidumping probes against Russian steel products have been undertaken around the world (8 actions in 1995, 13 in 1996, 6 in 1997, and 13 in 1998), including in Canada, Brazil, India, and the Philippines. The products subject to these trade cases included everything from semifinished products to cold-rolled steel. The dumping duties imposed ranged from 9 percent to 82 percent.<sup>140</sup> The long list of countries that took action against Russian steel products was a strong indication of the disruptive impact Russian steel was having on world steel trade.

- **The United States.** In the mid-1990s, the United States began to have its own problems with imports from former Soviet States. Other low-cost Russian steel products began to penetrate the U.S. market at the same time. There was a substantial increase in imports of plate from Russia and Ukraine (*Chart 3-12*), which led to the start of antidumping proceedings in late 1996.<sup>141</sup> This case foreshadowed the problems the United States would confront regarding other Russian steel products in 1998 and beyond.



3-12. U.S. Imports of Cut-to-Length Plate From Russia and Ukraine, Combined (1994–1997)

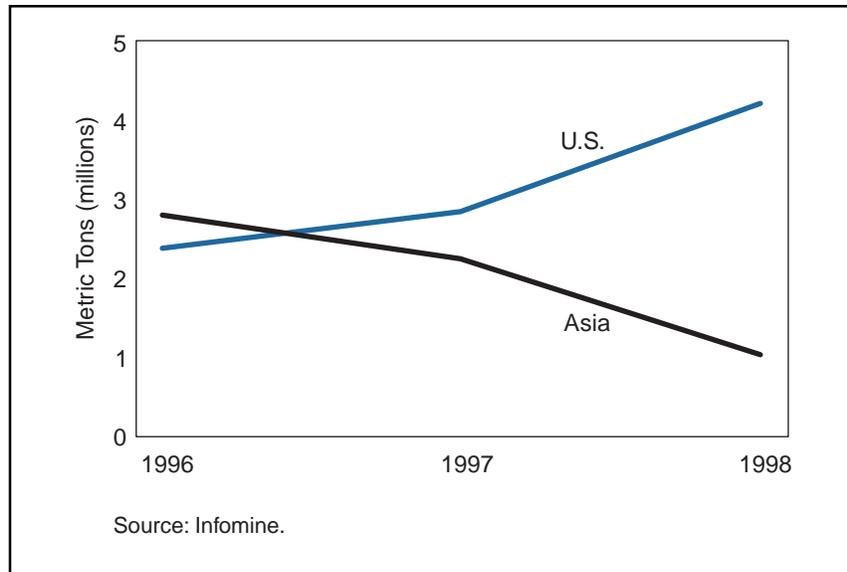
- **Asian financial crisis.** When the Asian crisis hit in 1997, it compounded the effects of the preceding decline in Asian demand and the numerous trade cases filed against Russian steel around the world. Between 1996 and 1998, Russian exports to Asia dropped by 64 percent from 2.8 million MT in 1996 to just over 1 million MT in 1998 (*Chart 3-13*).

The statistics for individual Asian countries are even more extreme: Thailand decreased its hot-rolled imports from Russia by 92 percent between 1996 and 1998; Malaysian imports declined by 56 percent; and South Korean imports plummeted by 99 percent.<sup>142</sup> For hot-rolled products, the decrease in Russian exports to Asia in 1998 just about equaled the increase in Russian exports to the United States.

## The Role of Russian Hot-Rolled Steel in the U.S. Steel Crisis

Although the U.S. market remained largely open to Russian steel, very few higher value-added steel products produced in Russia were of an acceptable quality level for the U.S. market. At the lower end, however, the Russians had tremendous capacity to export hot-rolled steel. The scenario played out for Russian steel products (declining domestic demand, maintenance of production, and growing exports) in some ways was very similar but was in some ways even more extreme for hot-rolled products.

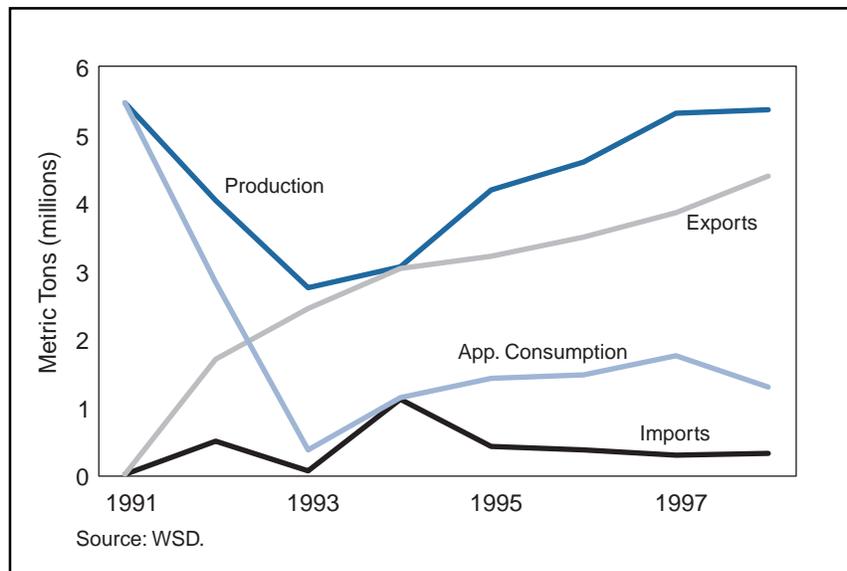
- Domestic demand for hot-rolled sheet dropped nearly 77 percent between 1991 and 1998 (*Chart 3-14*).
- Production for sale of hot-rolled sheet, after declining nearly 50 percent between 1991 and 1993, increased to levels nearly on par with levels prior to the Soviet break.<sup>143</sup>
- In 1998, more than 80 percent of Russian hot-rolled sheet production was exported, the majority of it going to the United States. In 1998, the United States consumed 57 percent of Russia's total production of hot-rolled products.<sup>144</sup>



**3-13. Russian Exports of Hot-Rolled Products to the U.S. and Asia**

The average unit value of these imports of carbon hot-rolled products was on average approximately 20 percent lower than the imports of any of the other major country suppliers. Steel experts have given several reasons for the low price received by Russian steel producers, including the following:

- Poor quality.
- Long lead times and delivery time uncertainty.
- Prepayment requirements.
- Lack of downstream subsidiary outlets in other countries.
- Reliance on Russian middle-men and small trading companies rather than well-established major international trading companies.
- The failure to produce upgraded products and limited product range.
- The lack of technical assistance.<sup>145</sup>



**3-14. Russian Production, Consumption, Imports, and Exports: Hot-Rolled Sheet**

Quality shortcomings included problems with packaging and transportation damage and unsuitableness for certain end uses (such as automobile manufacturing) because of failure to meet important surface quality requirements.<sup>146</sup> The major end users of Russian hot-rolled products have been U.S. pipe producers and other consumers who do not require products of greater strength or smoother and cleaner surfaces.<sup>147</sup>

## Impact on U.S. Domestic Prices

Between 1994 and 1996, imports of hot-rolled Russian steel ranged between 500,000 and 750,000 MT. Low-priced Russian imports did not begin to pull down U.S. domestic prices until 1997.<sup>148</sup>

- In 1996, the average unit value of Russian hot-rolled steel was \$251 per MT, while the average unit value of all hot-rolled imports was closely related to producer prices in the United States (\$322 vs. \$358).<sup>149</sup>
- In 1997, the average unit value of Russian imports, while increasing slightly, was still relatively low and accounting for a bigger percentage of total imports. Starting in 1997, the rising level of low-priced imports from Russia helped to hold down U.S. domestic prices.<sup>150</sup>
- In 1998, Russian hot-rolled steel imports into the U.S. increased by 93 percent,<sup>151</sup> and import prices dropped 14 percent.<sup>152</sup> The Russian share of U.S. imports of hot-rolled steel more than doubled to 33 percent, up from less than 15 percent in 1996. Between 1996 and 1998, the volume of Russian hot-rolled steel imports grew by more than 370 percent. In 1998, Russian hot-rolled imports alone nearly equaled that of Japan, Korea, and Brazil (the next three largest import suppliers) combined.<sup>153</sup>

## Market Psychology Exacerbates the Crisis

More important, perhaps, was the psychological effect these imports were having on the U.S. market. Everyone knew that Russia had an immense steelmaking capacity from the old Soviet days, that the plants were still running, but that domestic consumption had dropped sharply. When Russian steel started coming into the United States in larger quantities and at lower prices, U.S. steel producers became concerned.

At the same time, the average unit value of Japanese steel was dropping to comparable levels, even though the quality of the Japanese product was decidedly higher. And traders, fearing the filing of dumping cases against the surging imports—began bringing in massive quantities of Russian steel to satisfy their customers' needs not only for the rest of 1998 but for 1999 as well.<sup>154</sup> U.S. producers were forced to cut their prices as the prices of imported hot-rolled steel dropped more than 20 percent.<sup>155</sup>

## The Story of Magnitogorsk

Over 90 percent of the hot-rolled steel imports in 1998 came from three companies: Novolipetsk, Magnitogorsk, and Severstal. Novolipetsk was always the biggest exporter to the United States, shipping large but stable quantities of between 1.5 and 1.6 million MT during 1996–1998 (*Chart 3-15*). Severstal exported roughly half a million MT in 1996 and 1997, but ratcheted up exports to more than 800,000 MT in 1998.<sup>156</sup>

The most interesting story is that of Magnitogorsk. Exports to the United States from the company went from less than 200,000 MT in 1996 to more than 1.4 million MT in 1998. The increase of Russian hot-rolled steel imports between 1997 and 1998 is largely attributable to increased exports from Magnitogorsk (*Chart 3-15*).

The story of Magnitogorsk is very much the story of the Russian steel industry. Created under the first five-year plan in 1930,<sup>157</sup> Magnitogorsk eventually became the largest steel plant in the world.<sup>158</sup> Half of the steel that went into Soviet tanks during World War II was produced by Magnitogorsk.<sup>159</sup>

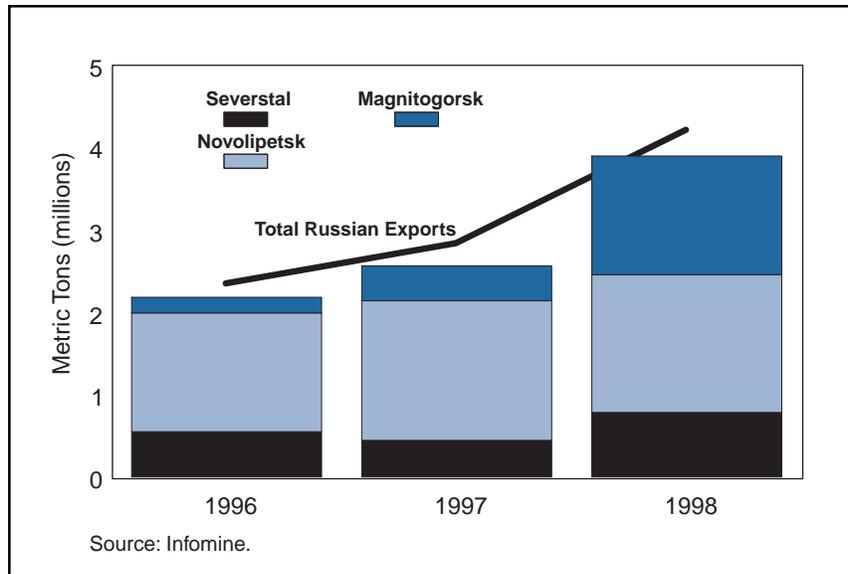
Shortly before the breakup of the Soviet Union, Magnitogorsk was slated for a \$5 billion modernization program.<sup>160</sup> While the program was not implemented, prior to privatization, two new modern steelmaking furnaces were installed and construction of a new hot-rolling mill (initially approved in 1986) began in 1992. The theoretical annual capacity of this huge new mill is 5 million MT.<sup>161</sup>

Although the production facilities at Magnitogorsk were in need of updating, the decision to begin construction of a new hot-rolling facility in 1992 must be seriously questioned. As clearly illustrated in Chart 3-14, domestic consumption of hot-rolled sheet had fallen by nearly 50 percent between 1991 and 1992; and by nearly 95 percent between 1991 and 1993. When the hot-rolling mill came on line in 1994, domestic consumption was just above 1 million MT while production from Magnitogorsk’s facilities alone could eventually approach 5 million MT.

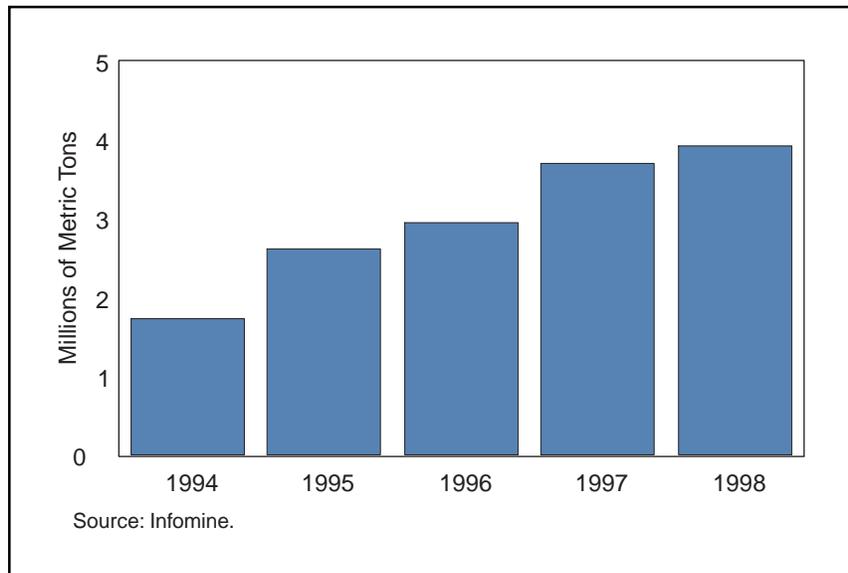
Despite the poor domestic market and the threat of bankruptcy in 1996, Magnitogorsk continued to ramp up production on its new hot-rolling mill (*Chart 3-16*). Like the other major Russian steel producers, Magnitogorsk began to export aggressively.

Since 1996, Magnitogorsk has, on average, exported more than 55 percent of its hot-rolled production.<sup>162</sup> As with the rest of the Russian steel exporters, the big market for Magnitogorsk was initially Asia. When the Asian crisis hit, Magnitogorsk turned to the United States.<sup>163</sup> What distinguishes Magnitogorsk from Novolipetsk and Severstal, however, is that its production of hot-rolled products was increasing between 1994 and 1998.

Total exports of hot-rolled steel by Magnitogorsk were flat between 1996 and 1997 but increased 43 percent between 1997 and 1998 (*Chart 3-17*). The increase of Magnitogorsk’s exports to the United States is attributable to three factors. First, Magnitogorsk continuously increased hot-rolled steel production (*Chart 3-16*). Second, much of the increase in exports to the United States was attributable to exports diverted from Asian markets.<sup>164</sup> Finally, a substantial percentage appears to have been sold previously in the domestic market. (The switch to export markets may have been due to a greater need for “real” money or perhaps to the Russian financial crisis of 1998.)



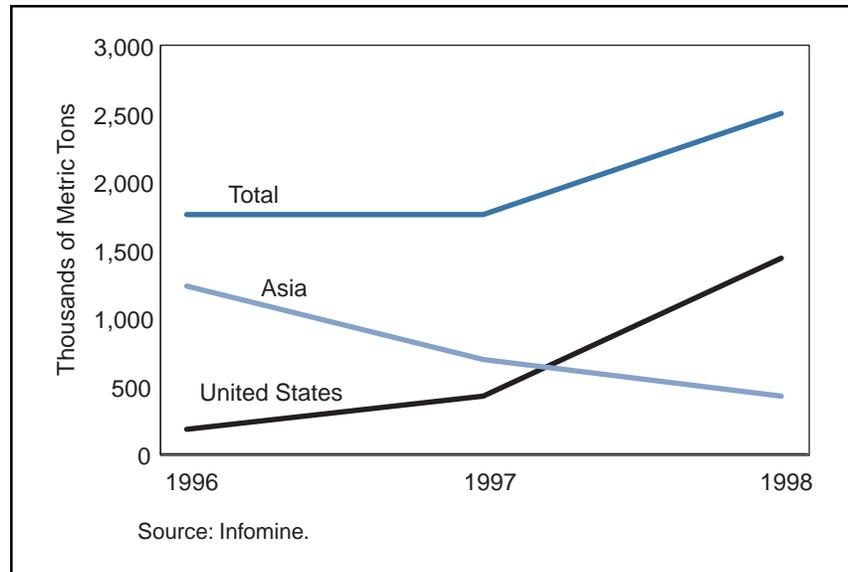
**3-15. Russian Exports to the United States of Hot-Rolled Products: Top Three Producers**



**3-16. Magnitogorsk Hot-Rolled Steel Output**

The story of Magnitogorsk's hot-rolling mill is emblematic of the Russian steel industry as a whole.

- Investments were made despite market conditions.
- Production continued or even increased without regard to domestic demand or serious financial difficulties.
- Huge volumes of steel production were exported at very low prices.
- Massive volumes of low-priced steel were diverted from one market to the next in a matter of months.



**3-17. Magnitogorsk Exports of Hot-Rolled Steel**

## Conclusion

The lack of normal business considerations at the investment, production and selling stages in the Russian steel industry led to volatility in the global steel market and damage to the steel industry and steel workers in other countries, including the United States. While the Russian steel industry has the potential to be competitive in world markets in the long-term, it must address the underlying market-distorting practices to avoid the kind of trade frictions it has encountered in the past.

## 3.2 Structural Factors and Japanese Steel Trade

### Introduction

A number of economic and structural factors in Japan's steel market played a significant role in the U.S. steel crisis of 1998. A decade-long deterioration in domestic steel demand was the primary market development that led Japanese producers to rely increasingly on exports in the 1990s. While resort to export markets in response to weak demand at home may be economically justifiable in principle, the presence of long-standing structural distortions in the Japanese steel market amplified the U.S. steel crisis by apparently helping to sustain low-priced imports into the U.S. market.

In the late 1990s, faced with tight fiscal policy, the Asian financial crisis, and the failures of major financial institutions, Japan slipped deeper into recession. Japanese steel consumption declined, and Japanese steel producers turned increasingly to export markets. These temporary economic conditions affecting Japanese steel trade only magnified underlying structural problems in the Japanese market. The combination appears to have resulted in higher volumes and lower prices of Japanese steel exported to the United States.

Japan's major structural problem is its noncompetitive steel market. The key symptoms of the Japanese steel market suggesting a noncompetitive market that can distort Japanese steel trade abroad are as follows:

- **Production shares** among the top five Japanese producers have remained virtually unchanged for twenty-five years. While the remarkable stability of production shares among Japan's top steel producers has caught the attention of Japan's Fair Trade Commission (JFTC), the Japanese government has not taken any further action to address concerns about apparent coordination among the major producers. The JFTC noted that despite the fact that total industry production levels fluctuated routinely from 1975 to 1992, "each share among the five companies has hardly fluctuated."<sup>1</sup>
- **High and stable domestic prices** to major steel customers in Japan have been another outcome of the apparent coordination of steel production. Industry data show that the prices paid by large steel consumers in Japan remained high and remarkably stable over a long period and in the years leading up to and including the export surge to the United States. These numbers support industry reports that producers placed a priority on maintaining domestic price stability, even at the expense of curtailed domestic shipments.
- There is a history of **international price discrimination** between domestic and export markets. As 1999 ended, Japanese steel products were subject to ten antidumping duty orders or undertakings and eight ongoing investigations in a number of countries including Brazil, Canada, Mexico, and the United States.<sup>2</sup>

The lack of meaningful competition among major producers in Japan, suggested by the long history of stable production shares and stable domestic prices, allows Japan to maintain a high-priced domestic profit sanctuary, which can affect global steel trade in the following ways:

- Revenues from high-priced domestic sales can be used to improve cost competitiveness by, for instance, funding research and development.
- Likewise, high domestic prices can be used to sustain low-priced exports over substantial periods of

time. Given the apparent importance that Japanese producers assign to maintaining sales and market share, this advantage can lead to disruptions in export markets.

As discussed below, many steel industry experts agree that there is a lack of competition in the Japanese steel market and have indicated that this lack of competition has contributed to the maintenance of capacity beyond what the market would otherwise warrant over the long term.

The insulated steel market in Japan is made possible by a variety of import barriers. Without these barriers, it would not be possible for the steel industry to fix production shares and high prices at home. For example, Japanese producers' influence over the distribution of steel insulates the Japanese market from international competition. Other barriers, including procedures for product certification, can add years to a foreign producer's attempt to enter the Japanese market.

As noted above, given the depths of Japan's recession in 1998 and the faltering of domestic steel demand, it is not unexpected that Japanese steel producers would turn to export markets. What is of concern, however, is the nature of Japan's export sales compared to its domestic sales. Japan's noncompetitive market structure helped producers sustain low-priced exports, which in turn exacerbated the 1998 U.S. steel crisis.

As reported by steel analysts and the Japanese press, in early 1997 the major integrated producers decided to lift production restraints on hot-rolled sheet. But they only freed up production of hot-rolled sheet for export, while keeping in place production restraints on domestic market shipments.<sup>3</sup> The percentage of hot-rolled sheet produced for export rose from 30 percent in 1996 to nearly 60 percent in 1998.<sup>4</sup>

At the time of the reported decision to free up production for export, Asia was the most likely market for the planned export drive. However, when primary Asian markets collapsed, Japanese producers redirected their exports to the United States. Hot-rolled steel imports into the U.S. market increased 1,000 percent from 1996 to 1998.<sup>5</sup> One of the most distinctive features of these export sales was the extent of price-cutting that occurred, as described in industry reports.<sup>6</sup> Prices of exported hot-rolled sheet from Japan fell below the depreciation of the yen during this same period.<sup>7</sup> Meanwhile, high domestic prices of major products sold to large customers held steady from 1996 to 1998 despite deteriorating home market demand. Industry analysts at the time noted that revenues from domestic market sales were a key to the Japanese producers' ability to sustain low prices in export markets.<sup>8</sup>

The export drive expanded beyond hot-rolled sheet to include structural shapes and other major products as the severe recession of 1997 continued into 1998. By this time, the apparent goal of Japanese producers was to restrain domestic shipments to prop up prices in a weakening market, while preventing a further slide in capacity utilization rates through exports. As one Japanese industry official stated regarding 1998, "[s]ometimes we took measures that could be fairly characterized as dumping in order to boost capacity utilization."<sup>9</sup> Despite rising U.S. demand, the dumping of Japanese steel exports to the United States contributed to falling steel prices in the U.S. market and cutbacks in U.S. steel production.

## **The Noncompetitive Market Structure**

The Japanese steel industry is a mature sector whose period of major capacity expansions is well behind it. Japanese producers—including the five large integrated producers (Nippon Steel, NKK, Kawasaki, Sumitomo, and Kobe)—are generally recognized as efficient in terms of both labor and total factor productivity.<sup>10</sup> During the past decade, Japanese producers cut costs, in part by reducing employment.

However, despite the Japanese steel industry's status as an efficient, developed sector, it has continued to benefit from practices that shelter the industry, provide competitive advantages vis-à-vis foreign producers, and substantially influence global steel trade. The effects of long-standing structural factors are most

apparent in the marked differences in which steel is sold domestically and for export. These long-standing structural problems exacerbated the steel crisis in 1998.

The question of whether major Japanese steel producers coordinate on production levels and other business decisions is well known among steel industry observers. It has received increasing attention in recent years with respect to its potential impact on steel trade, including the 1998 surge in exports to the United States. A discussion of the issue is therefore warranted in the context of a report on structural issues facing the global steel industry.

This report does not address the lawfulness of conduct of Japanese steel producers under existing U.S. or Japanese law. Company-specific information such as intra-company memos or depositions of key officials was not collected. Such an attempt would have been outside the authority of the Commerce Department and beyond the scope of this report. Within these limitations, however, a substantial effort was made to investigate claims of the existence and trade impact of alleged coordination among Japanese integrated producers (*see box*).<sup>11</sup>

In total, the information gathered for this report appears to indicate that a noncompetitive market among major integrated producers in Japan has remained in place throughout the 1990s, and that it affected trade flows during the past several years. The manner in which these firms are said to interact is commonly referred to as a “cooperative system,” allegedly involving long-standing coordination on production shares and other business decisions, with Nippon Steel serving as the industry leader.

## **A Look at the Data: Production Shares and Pricing**

### **Stable Production Shares**

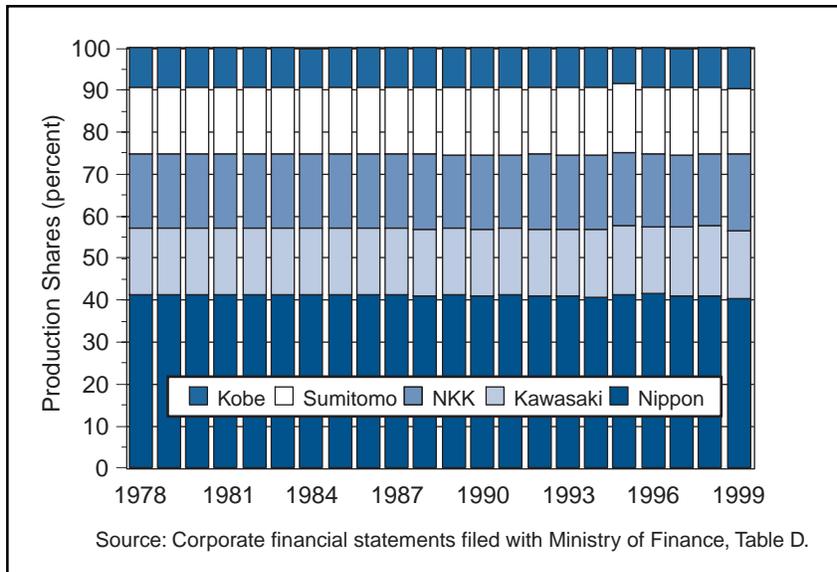
Long-term production data support the views of industry experts regarding coordination among major producers. Within the pool of crude steel production accounted for by the five major integrated firms, the production share of each firm has remained virtually constant for twenty-five years, from the mid 1970s up through the time of the export surge. In general, for each of these years, Nippon Steel has accounted for

#### ***Methods of Inquiry Into Alleged “Cooperative System”***

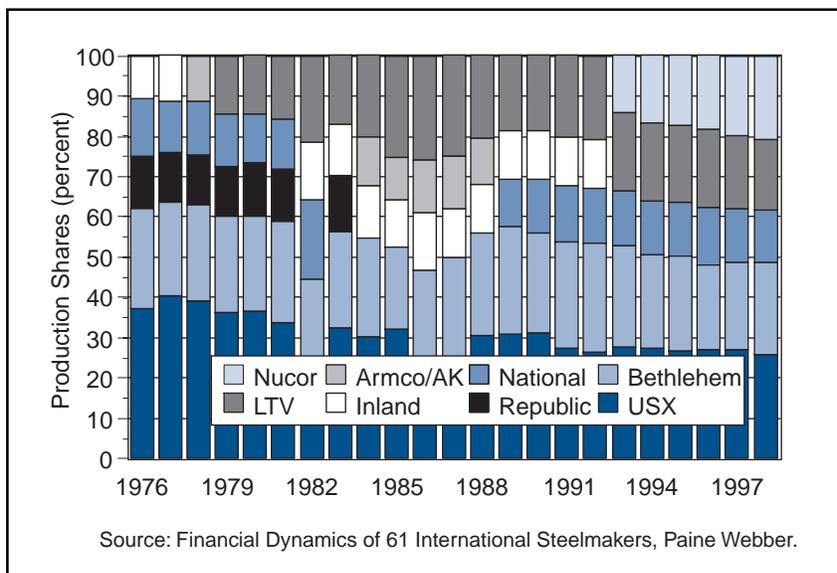
The inquiry into allegations of coordination among major producers included:

1. A review of the relevant data available from public sources, including production shares, domestic and export pricing, shipment volumes, and Japanese import levels.
2. A review of published materials in the United States and Japan, including monthly steel industry reports by investment firms, literature by academics and journalists, and journal and press accounts.
3. Numerous interviews in Japan and the United States with industry experts, including academics, government officials, investment firms, journalists, and U.S. importers. Within the Japanese steel industry, a major industry association (the Kozai Club), as well as the leading mini-mill producer, Tokyo Steel, were interviewed. The five major integrated producers declined interview requests.

The analysis of the primary data that might reflect any such coordination—long-term relative production shares—was important, as were data relating to the market impact of alleged coordination, namely pricing, shipment, and import data. Direct interviews with industry experts were also helpful. Finally, the growing literature on the subject provided background on the historic and present-day context of alleged coordination among major producers. Some of the secondary information on this issue is anecdotal in nature. However, the sources are considered to be reliable and authoritative.



**3-18. Japanese Crude Steel Production Shares for the Five Major Producers (years ending March 31)**



**3-19. U.S. Crude Steel Production Shares Including the Top Five Companies**

just over 40 percent of production, followed by NKK at 18 percent, Kawasaki and Sumitomo at 16 percent, and Kobe at 9 percent (*Chart 3-18*).

By comparison, crude steel production for the top five U.S. producers over the same time period shows no clear pattern (*Chart 3-19*). Moreover, new U.S. companies have broken into the top five over time, while others have dropped out—a dynamic that has been absent in the Japanese steel industry.

Unchanging production shares among Japan’s top steel producers dating back to the mid-1970s was a cause for concern for Japan’s Fair Trade Commission in a 1994 industry survey. While the JFTC did not formally conclude that a cartel exists among Japanese producers, it noted the long-term rigidity in production shares, and expressed concern that “in an oligopolistic industry, even a minor exchange of information can easily bring about a common intention regarding supply quantities.”<sup>12</sup> Since then, production shares remained constant through the time of the export surge. The Japanese government has not revisited the issue of the lack of

competition. A number of experts suggest that, aside from simply tolerating such behavior, the Ministry of International Trade and Industry (MITI) plays a role in overseeing the allocation of production shares among firms, albeit in a less active manner than in past decades.<sup>13</sup>

Given the many variables that affect a major industry like steel—*e.g.*, different investment rates and labor and production changes—the ability of these producers to maintain constant production shares over such a long period is highly unusual, and cannot be written off as a coincidence. Instead, as a number of experts have observed, it is indicative of industry coordination to control production dating back to the creation of Nippon Steel in the 1970s and continuing through the 1990s.

## High Domestic Prices

The apparent coordination on steel production helps explain how integrated producers have been able to maintain high prices to their major customers, despite the long-term deterioration of domestic demand. The maintenance of high, exceptionally stable, “big buyer” prices (*see box*)<sup>14</sup> in the years leading up to and including the export surge from 1996 to 1998 is especially telling.

Hot-rolled coil remained at the same premium price of 71,000 yen throughout each quarter of the entire three-year period from 1996 through 1998 (*Chart 3-20*).<sup>15</sup> The price for cold-rolled coil, galvanized sheet and wide flanged beams also remained fixed from 1996 through 1998, while the price for plate fluctuated only slightly. The maintenance of high price levels to large buyers through the end of 1998 is consistent with analysis in industry reports stating that the priority for the integrated producers was on maintaining domestic price levels in a deteriorating market, even at the expense of sharply cutting domestic shipments.<sup>16</sup>

Using even the broadest possible indicator of all domestic Japanese steel prices—Bank of Japan price index data—prices of major products have been relatively stable in the face of deteriorating home demand. Overall hot-rolled steel prices for all domestic sales in Japan remained relatively stable during much of the period. In contrast, U.S. prices for hot-rolled steel fell significantly during this time. U.S. domestic prices fell by at least 10 percent, while prices for U.S. imports of hot-rolled steel from Japan fell by approximately 30 percent, despite the strength of U.S. demand (*Charts 3-21, 3-22*).

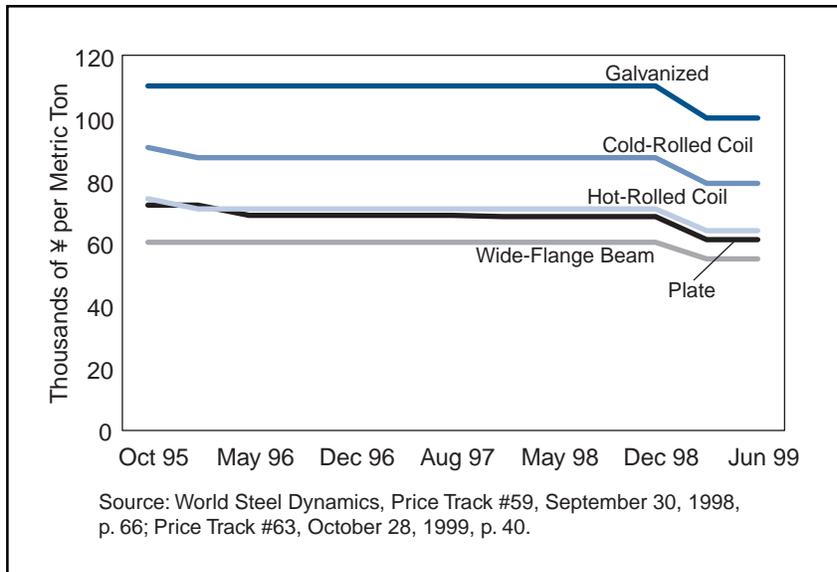
### *The “Big Buyer” Price*

The big buyer price is the price charged by integrated producers to large industrial users (*e.g.*, construction and auto customers), accounting for the majority of sales by the large Japanese steel producers. Big buyer prices are reported along with the Japanese dealer price and export price in World Steel Dynamics’ *Price Track* publications.

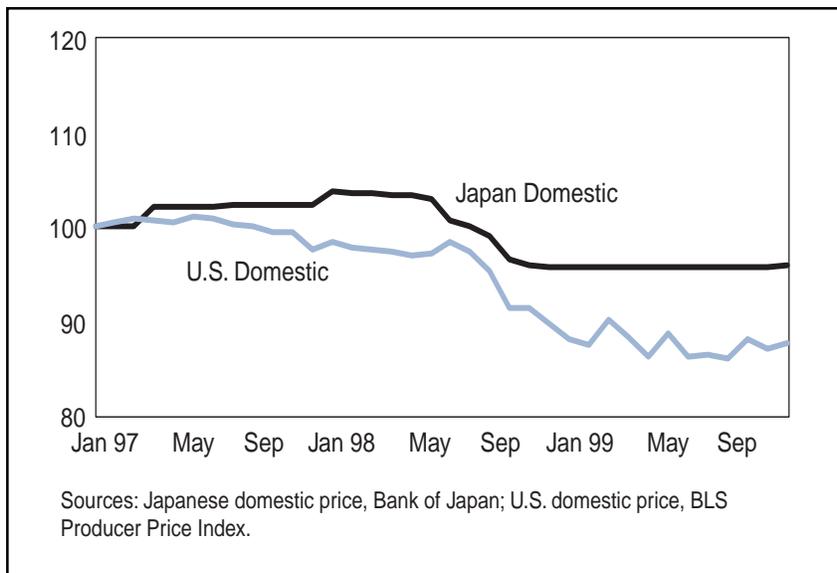
The *Price Track* publications list two sources for the big buyer price series: (1) *Kensetsu Bukka* (“Prices of Construction Materials and Wages”), a monthly publication produced by the economic research organization *Kensetsu Bukka Chosa Kai* (“Construction Prices Research Institute”) in association with the Ministry of Construction, and (2) World Steel Dynamics research. According to an official from World Steel Dynamics, the big buyer price included in the *Price Track* publications represents the actual price paid by large industrial users, and is not a “list” price. Also, while the *Kensetsu Bukka* is a construction sector price series, World Steel Dynamics officials indicated that the big buyer prices listed in *Price Track* pertain to major buyers generally in Japan.

Based on a comparison of big buyer prices as reported in *Price Track* with those reported in *Kensetsu Bukka*, it appears that the reported big buyer prices are in fact “actual” (nonlist) prices. The big buyer prices as published in *Price Track* correspond with the “actual sales price” listed in *Kensetsu Bukka*. This “actual sales price” is derived from a starting price, the “tie-in sales price,” that is substantially higher than the “actual sales price.”

The products listed in these “big buyer” price series appear to be basic, commercial-grade ordinary steel products, not specialty products. In the *Price Track* publications, big buyer prices are listed for the same basic products as those listed for Japanese dealer prices and Japanese export prices. These include hot-rolled coil, cold-rolled coil, galvanized sheet, wide-flange beam, and plate. The big buyer price series does not indicate that there are any product differences between products sold at the big buyer levels and through other channels. Similarly, in the *Kensetsu Bukka* price series, the items listed appear to be standard commercial grade “carbon quality” ordinary steel products such as commercial quality hot-rolled and cold-rolled sheet (as indicated by a comparison of Japanese product brochures with specifications listed in the *Kensetsu Bukka*).



**3-20. Japanese Domestic Big-Buyer Price, Five Major Steel Producers**



**3-21. Hot-Rolled Sheet Price Comparison: Japanese Domestic Price vs. U.S. Domestic Price (Price Index: January 1997=100)**

As with the existence of the cooperative system itself, the connection between cooperation among producers and high domestic prices has been increasingly acknowledged by industry observers in recent years. In June 1998—the height of the export surge—one investment firm referred to “the current premium on domestic prices based on the harmonious relationship among the six [blast furnace] companies.”<sup>17</sup> Other observers have also related coordination among major firms to high domestic prices, as well as high profit levels at various times over the past twenty-five years.<sup>18</sup>

### **Noncompetitive Domestic Market: Past and Present**

A look at the long history of coordination among major Japanese steel producers sheds light on production, shipment, and pricing practices today. Government-sponsored cartels among private producers have long been a feature of the steel industry in Japan, dating back to the early part of the century.<sup>19</sup> They continued to be prevalent during the industry’s high growth period (from the 1950s through the mid-1970s), during which MITI directly

coordinated production and investment increases.<sup>20</sup> When demand for steel stagnated in the late 1970s and 1980s, legalized cartels were formed under the authority of the so-called “Depressed Industries Legislation,” which provided exemptions to the Anti-monopoly Law for the formation of cartels to stabilize industries designated as structurally depressed.<sup>21</sup>

Historically, cartelization conferred significant benefits on Japanese steel producers while, at the same time, giving rise to structural problems due to market insulation. The key policy goals that industry coordination fostered were shared technological improvements, cost reductions, and international competitiveness.<sup>22</sup> For much of the industry’s growth period, the government simultaneously sheltered established producers from “excessive” domestic competition and targeted the industry for export growth, as capacity increases rapidly

outstripped growth in domestic demand.<sup>23</sup> The benefits of industry coordination, in turn, encouraged further capacity increases (*see box*).<sup>24</sup>

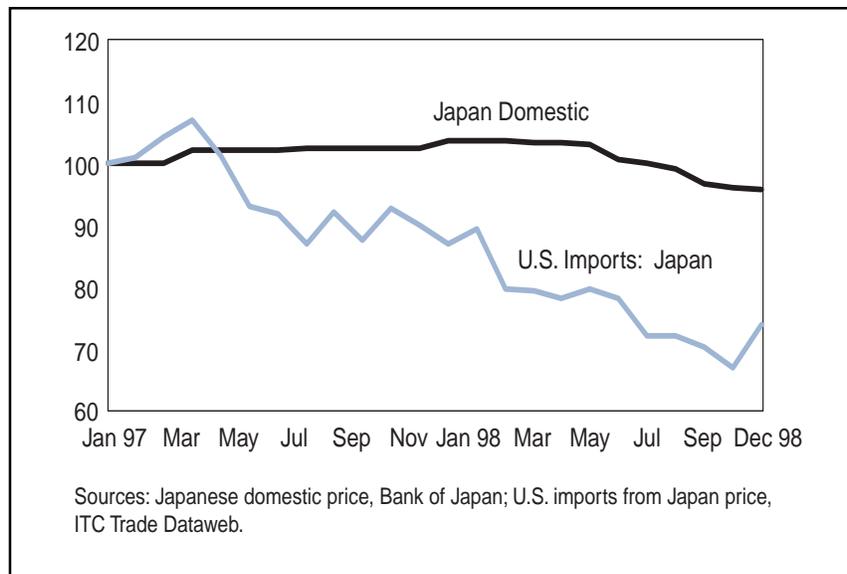
In effect, industry coordination removed the threat of bankruptcy that normally keeps capacity expansion in check. The end result was often the polar opposite of the stated policy of controlling production and capacity levels: while government-sponsored cartels were supposed to control and even reduce capacity—via a reduction in production in the short term and scrapping of capacity in the long term—the market insulation that resulted

created a tendency toward capacity preservation and increases. Even as Japan continued its postwar growth in the 1980s, experts acknowledged more and more that the pitfalls of industry collaboration, including excess capacity, were becoming increasingly apparent. As noted by one observer in 1982:

One result of the MITI policies was to increase an industry’s capacity beyond what would be prudent. And today, when the cushion of a cartel still exists, the reduction in total excess capacity will be slower than when no collusion is permitted.<sup>25</sup>

It is in this sense that coordination among producers has historically acted as a buffer against market fluctuations, which may in turn lead to a lack of market exit and capacity levels higher than would otherwise occur under more competitive conditions. Given the importance of maintaining capacity utilization in a high fixed-cost industry such as steel, this can put pressure on supply, particularly during market downturns.

While such practices created distortions during Japan’s high-growth period, the real harm, both to Japan and to its trading partners, occurred because these practices appear to have become more or less permanent



**3-22. Hot-Rolled Sheet Price Comparison: Japanese Domestic Price vs. Price of U.S. Imports from Japan (Price Index: January 1997=100)**

### *Cartels and Excess Capacity*

The historical relationship between government-sponsored cartels and capacity is explained by one observer, in a seminal paper on Japanese cartels in steel and other basic industries, as follows:

If the largest firms were to grow rapidly by adopting new technology that was usually larger in scale than what it replaced, the firms had to produce more, often significantly more than before, to make optimum use of the new technology. The problem was that such an increase in productive capacity often tended to exceed the domestic demand and increases in exports often did not occur swiftly enough. ...If the rapidly growing firms were allowed to engage in temporary “cooperative actions” to fix prices or limit output, no potentially ruinous price-cutting competition would occur, threatening bankruptcies, and no loss in profits would result, reducing the internal reserve needed for the next round of capacity expansion enabling the firms to adopt even more advanced technology.

features of the Japanese economy well after the country's development. By the 1990s, the days of officially sanctioned cartels were over, but by most accounts industry coordination remained in place. As one observer noted in 1998, "These days, 'administrative guidance' and the power of industry associations produce the same results as formal cartels."<sup>26</sup> An increasing number of steel experts openly recognize a cooperative system as a basic part of the industry's structure (*see box*).<sup>27</sup>

Many experts note the continued connection between industry cooperation and the maintenance of long-term excess capacity in the late 1990s. One prominent Japanese steel expert noted, in an interview for this report, the tendency toward surplus capacity due to the long-standing absence of competition and market exit. In particular, he indicated that the current production and capacity levels in the integrated sector are most likely greater than the levels that would result if Nippon were to compete fully with the other producers. If exposed to open market competition, according to this expert, one or more of the top five Japanese steel companies would likely be forced out of business.<sup>28</sup>

### ***Industry Observers Commonly Refer to Collaboration Among Japanese Producers***

The recognition of longstanding collaboration among major Japanese producers as a basic characteristic of the industry has become increasingly widespread in recent years. Professor Hiroyuki Itami of Hitotsubashi University, a recognized expert on the steel industry in Japan and the chairman of the committee that prepared a 1999 MITI-sponsored study on basic materials industries (including steel), has written about cooperation among major steel producers in a recently published book. Professor Itami comments that shortly after Nippon Steel's formation, production shares "come to a standstill. They are horizontal lines." In an interview for this study, Professor Itami stated that the "cooperative system" among the five major integrated producers has continued in place to the present day. While stopping short of calling this system a formal cartel, he discussed the sharing of production and other information among such firms, via industry associations. Professor Itami's recognition of the longstanding existence of the "cooperative system" is consistent with other Japanese industry sources interviewed for this report.

The increasingly open recognition of long-term collaboration among integrated producers comes on the heels of a growing literature by scholars and journalists who have written extensively on the structure of the Japanese industry in the late 1990s. These include Professor Naoki Tona (who refers to a "cooperative structure which can be called a horizontal cartel"); Richard Katz (referring to an ongoing "steel cartel" among major integrated firms); Professor Mark Tilton (who discusses the "steel cartel" in a book on cartels in Japan's basic materials industries); and *The Economist* (which refers to a "steel cartel" as of November 1999).

The acknowledgment of coordination among producers also extends to the Japanese press. The leading Japanese business publications Nihon Keizai Shimbun and Nikkei Sangyo Shimbun both write openly about collaboration among major producers through the late 1990s. The Nikkei Sangyo Shimbun, in detailing long-standing collaboration on production levels among major producers, has listed the production shares traditionally held by each company down to a tenth of a percent. The Nikkei Sangyo notes in particular the oddity that, "Despite the fact that Kawasaki Steel and Sumitomo Metals both were producing more than 10 million tons annually, there had been no more than a 30,000-ton gap between them for quite some time."

While views on coordination among integrated producers are not completely unanimous (Professor Robert Uriu of Columbia University, for instance, is of the opinion that cooperation among major Japanese producers was curtailed in the 1990s due in part to pressure from customers), there is extensive support—in terms of both data and industry knowledge—for the coordination viewpoint. Even a single percentage change in production share, such as occurred after the export surge in late 1999, is a source of extensive commentary among industry experts looking to determine the future level of collaboration on production decisions within the industry.

## Noncompetitive Domestic Market and Global Steel Trade

Aside from the general capacity problem, the advantages that may be created by an absence of meaningful domestic market competition for Japanese producers have implications for global steel trade.

**Cost Competitiveness.** Several experts have noted that high domestic prices resulting from industry coordination continue to benefit Japanese firms relative to producers from other countries. The revenues from such sales can be used to increase the industry's competitiveness through, for instance, high levels of research and development. As an example, Professor Itami of Hitotsubashi University estimated in an interview for this report that Japanese steel producers typically account for 40 percent of total global steel-related R&D, with Nippon Steel alone accounting for half of this, or 20 percent of the worldwide total. While industry coordination is not Itami's sole focus in explaining the competitiveness of the Japanese steel sector—he praises management decisions by Japanese producers and is critical of certain business strategies pursued by U.S. producers<sup>29</sup>—it is viewed as a basic structural characteristic that confers competitive benefits on the producers involved. In this respect, Itami's views are similar to those of economist Edward Lincoln of the Brookings Institution, who also views a protected domestic market in steel and other industries as conferring a competitive advantage to Japanese firms through the 1990s.<sup>30</sup>

**Price Discrimination.** A high-priced domestic market, maintained in part through a lack of meaningful competition among major producers, provides a mechanism for covering fixed costs through domestic sales. This coverage, in turn, can facilitate low-priced exports for sustained periods.

This is not to say that Japanese producers always export at prices below total costs. The Japanese steel industry has been noted as making profits from exports at various times, for instance during the Trigger Price Mechanism period in the late 1970s.<sup>31</sup> Nor does it mean that below-cost export pricing could not occur during market downturns in the absence of a high-priced domestic market. A combination of demand and supply factors renders the global steel industry naturally prone to severe price competition, including short-run marginal-cost based pricing, particularly during downturns in demand. Demand for steel is highly cyclical, being derived from the demand for durable goods, such as automobiles, appliances, capital goods and machinery and construction requirements. On the supply side, the capital-intensive production process and resulting high fixed costs that characterize the steel industry, (notably furnace and mill construction), render capacity utilization rates crucial to cost competitiveness and give producers an incentive to continue production during downturns so long as revenues at least cover marginal cost.<sup>32</sup>

At the same time, there is substantial information that revenues from a noncompetitive domestic market can amplify the tendency to export at low prices (*see box*).<sup>33</sup> The willingness of firms to engage in such pricing is not based solely on profit maximization, but is affected by other economic, political, and business culture factors, including the importance assigned to maintaining sales and market share in export markets, shoring up capacity utilization rates, and ensuring general stability within the domestic industry. When used to its full effect, this business culture can add significantly to the price volatility inherent in the steel industry and cause severe disruptions in export markets.<sup>34</sup> While there is no way to prove the exact extent to which proceeds from domestic

### ***Domestic Profit Sanctuary: Impact on Foreign Prices***

One industry observer discusses the historic relationship between the domestic profit sanctuary and export pricing by Japanese industries including steel in these terms:

By keeping the domestic market closed to imports, and therefore being able to charge high prices at home, companies earned high enough profits at home to be able to subsidize low prices on the export front, and thereby seize foreign market share.

sales have been used to bolster exports, the cross-subsidizing of foreign sales with domestic market revenues in Japanese industry in general is recognized by economist Edward Lincoln.<sup>35</sup>

This appears to apply to the pricing patterns of Japan's major integrated steel makers in recent years. During the late 1990s, the gap between big buyer prices and export prices widened substantially despite the long-term weakness of domestic demand. A 1998 Merrill Lynch report comparing the pricing practices of Japanese and Korean steel producers specifically relates Japanese integrated firms' ability to sustain low-priced exports to revenues earned on domestic market sales:

South Korean competitor Pohang Iron and Steel (POSCO) relies largely on export markets for earnings and therefore sets export prices at levels that would cover total costs. Japanese blast furnace companies, by contrast, basically are relying on the domestic market for earnings and are therefore able to export at prices high enough to cover variable costs. This means the Japanese makers can sustain exports as long as their variable costs remain below POSCO's full costs. In fact, in theory they could take market share away from POSCO by strategically pricing exports at levels that just cover variable costs.<sup>36</sup>

During a three-year period in the late 1990s, Japanese producers were in fact able to sustain significant price-cutting on exports. Japanese export prices began their decline in early 1997. Price declines continued through 1998, and were maintained, or even lowered further in some cases, into 1999. During this time, Japanese export prices—both overall and for major products like hot-rolled steel—were reduced by 30 percent or more, below the yen depreciation that occurred.<sup>37</sup>

With respect to Japanese export pricing to the U.S. market, recent antidumping analyses by the U.S. Commerce Department have found that major Japanese steel producers have priced their U.S. exports substantially lower than comparable domestic sales. In an antidumping analysis, company-specific pricing and cost information is analyzed in order to account for differences in products, channels of distribution, and selling expenses. Even taking such differences into account, substantial pricing differences were found between domestic and export sales of hot-rolled steel products. For other major products, such as cold-rolled steel and structural shapes, Japanese producers did not respond to the Commerce Department's requests for information, and, as a result, company-specific export and domestic price comparisons could not be made for such products.<sup>38</sup>

Domestic and export price comparisons performed pursuant to antidumping investigations are unique in the extent to which market- and company-specific pricing and cost information is taken into account. Aside from antidumping investigations, one researcher, Professor Mark Tilton of Purdue University, has found substantial pricing differences based on publicly available price data. Professor Tilton, who has written extensively about Japanese basic materials industries, including steel, has found that Japanese "big buyer" prices<sup>39</sup> have remained substantially higher than both Japanese export prices and U.S. prices throughout the 1990s, despite the decade-long erosion of demand in the Japanese market. According to this analysis, which was based on pricing data from World Steel Dynamics, he found that big buyer prices on hot-rolled coil exceeded Japanese export prices by 67 percent to 105 percent for the five-year period covering 1993 to 1998. After this time, the price difference widened further despite the continued weakness in the domestic market. By March 1999, Japanese producers were offering hot-rolled coil for export at \$220 per metric ton (MT), while charging big buyers \$520 per MT, a difference of nearly 140 percent.<sup>40</sup>

This analysis also finds that Japanese big buyer prices have substantially exceeded U.S. contract prices throughout the past decade. In the case of cold-rolled steel, the big buyer price exceeded the U.S. contract price by 80 percent from 1993 through 1995. After that, the gap narrowed as the yen depreciated. However, even when the yen was at 133 to the dollar in early 1998, the big buyer price was still 18 percent higher than the U.S. contract price.<sup>41</sup>

Professor Tilton's price analysis has been criticized by representatives of Japanese integrated producers on the following grounds: (1) The big buyer price difference is partially explained by the overall long-term appreciation of the yen since the Plaza Accord in 1985; (2) big buyer prices include only Japan's largest, most sophisticated steel consumers, whereas the U.S. contract price includes many smaller, less demanding customers; and (3) big buyers in Japan prefer their traditional integrated suppliers due to a high level of customer service and product customization.<sup>42</sup> Representatives of Japanese firms have also noted concern with the reliability of the reported big buyer prices themselves.<sup>43</sup>

While these factors may influence high domestic prices to major customers, they cannot alone explain the sheer size of the price differences involved—particularly given Japan's weak domestic market. First, the yen has fluctuated substantially since 1985. Yet big buyer prices have remained high and stable in comparison with other prices in Japan, Japanese export prices, and prices in other major markets such as the United States. Second, the contention that the big buyer price is limited to a select group of the most sophisticated customers is at odds with the fact that sales to big buyers reflect a substantial majority of integrated producers' total sales, which is not disputed by representatives of Japanese integrated producers.<sup>44</sup> It is also at odds with the information indicating, as noted above, that the reported big buyer prices are for commercial-grade ordinary steel. Finally, while factors such as customer service and production customization may influence price (as Tilton's analysis recognizes),<sup>45</sup> even those analyses, such as antidumping analyses, that take company-, product-, and market-specific differences into account find substantial pricing differences.

## **Barriers to Imports**

Although Japanese domestic prices have long been at levels well above prices prevailing in other markets, imports into Japan have remained low by international standards. Of course, high domestic prices could not hold if importers were able to take advantage of these high prices. Several factors—including distribution barriers, product-certification requirements, and alleged international market-sharing arrangements—can be identified that limit Japan's steel imports, and as such can help explain the existence of a noncompetitive domestic market.

Japanese steel import penetration has historically remained at less than 10 percent, below import levels in the United States, Korea, and the EU.<sup>46</sup> While imports were increasing gradually up to 1991, they fell sharply through the rest of the 1990s as domestic demand dropped. The fall in imports was in fact even steeper than the fall in overall domestic demand: while domestic apparent consumption declined nearly 30 percent over the past decade, imports plummeted by 50 percent, from nearly 14 million MT in 1991 to 6.6 million MT in 1998. As a result, even as measured against a declining Japanese steel market due to the prolonged recession, imports became increasingly less significant relative to domestic shipments. Imports comprised 9.6 percent of domestic apparent consumption in 1991, and just 7.4 percent in 1998.<sup>47</sup>

The decline in imports since 1991 cuts across most major product groups:

- Imports of hot-rolled steel fell from 3.5 million MT in the early 1990s to 2.2 million MT by 1998.
- Imports of long products, including structural shapes and wire rod, fell drastically, from over a million MT in 1991 to less than 200,000 MT in 1998.<sup>48</sup>

For certain products, both imports and domestic apparent consumption fell so severely as to render trends in product-specific import penetration rates almost meaningless. For instance, despite a meager overall import penetration rate of just over 7 percent for all steel products, import penetration of hot-rolled steel had by some measures increased to nearly 40 percent by 1998, despite the substantial drop in hot-rolled steel imports noted above. This is because the already-small Japanese merchant market for hot-rolled steel had plummeted to just 6 million MT in 1998, down from 10.5 million MT in 1991.<sup>49</sup>

While the 50 percent fall in imports since 1991 is clearly due in part to the weakness of the domestic economy, the fact remains that Japanese import penetration has been far less than in other countries even during times of strong demand, and has remained under 10 percent for the past decade.

### Distribution Issues

According to a number of sources, the integrated producers' apparent control over the steel distribution system—including trading companies and steel service centers—constitutes a barrier to importing steel into Japan (*see box*).<sup>50</sup> Representatives of Japanese integrated producers take the view that the steel industry lacks the market power to coerce its major customers—which in the aggregate are many times larger than

#### ***Japanese Distribution Barriers Reflect Deeply Rooted Practices***

One of the most vocal critics of Japanese integrated producers, Masanari Iketani, the President of Tokyo Steel—a Japanese mini-mill—has frequently stated that “one of the main barriers preventing [steel] imports from entering Japan is the distribution system which is tightly controlled by the trading companies.” The integrated producers, in turn, appear to have control over trading companies. The Japan Economic Journal reports that: “[A]nother obstacle to import growth, traders say, is the Japanese steel companies themselves. ...[T]heir power over the trading companies [is a] key means of holding imports at bay. Traders claim, for example, that the big steelmakers use the implicit threat of cutting supplies to any major trading houses that attempt to import steel directly.”

the Japanese steel industry—into paying high prices, and in effect subsidizing the steel industry.<sup>51</sup> Similarly, the willingness of large customers to pay higher prices is often attributed to a preference for the high quality, superior service, and stable supplies offered by Japanese integrated producers.<sup>52</sup> These factors no doubt play some role in causing customers to stick with Japanese steel and pay higher prices, as do more general factors such as the national priority assigned to the steel industry.<sup>53</sup>

However, there have been a number of allegations of refusal-to-deal threats made by the steel industry to customers who might import.

One of the most widely noted “refusal-to-deal” allegations involves a decision in the late 1980s by shipbuilder Mitsubishi Heavy Industries (MHI) to purchase a small amount of steel from POSCO, at a time when the price for Japanese steel was 60 percent higher than for Korean steel.<sup>54</sup> As reported in the Japanese press at the time, a Nippon Steel

official stated, “There is no mistake that [MHI] is importing steel in Nagasaki. ... What we’d like to tell them is, ‘Fine. In return, we will not supply you with any of the high quality steel that Korea can’t produce.’”<sup>55</sup> While Nippon eventually granted tacit approval to purchase minimal amounts of steel from POSCO, MHI has never increased its steel imports above 10 percent of its needs.<sup>56</sup>

In a recent research study based upon interviews of Japanese steel experts and industry officials, one observer concluded that retaliatory threats continue to be an important deterrent to steel imports.<sup>57</sup> As the report states regarding the MHI episode, “It is crucial to note that MHI was not simply concerned about a relational contract with a specific firm, but was afraid it might be shut out of dealings with the entire [Japanese] steel industry.”<sup>58</sup>

According to this study, these threats are due in part to the complex web of business relationships in Japan. For instance, major shipbuilders also have significant industrial machinery operations, including steelmaking equipment. Retaliatory threats from the major steel producers to their shipbuilder customers therefore extend to “the threat to cut off purchases of new manufacturing equipment, or to tell the shipping companies which handle their imports and exports to stop buying ships from particular firms.”<sup>59</sup>

## The Product Certification System

Adding to the problem of finding a willing customer, a foreign producer must also wade through official Japanese certification requirements for steel—an often lengthy and frustrating process. Japanese Industrial Standard (JIS) certifications are national standards for industrial and mineral products. As a business reality in the steel industry, anyone wishing to sell in Japan must meet these standards. MITI handles applications for JIS approval for foreign producers.

The approval process for JIS certifications on trade with Japan has been a long-standing complaint among foreign producers trying to export to Japan. Given the international rules governing certifications and Japan's harmonization of its certification standards with those rules,<sup>60</sup> in theory it should be as easy for a foreign producer to get JIS approval as it is for a domestic producer. But according to U.S. mills who have been through the process, acquiring JIS approval has not been easy.

While the Japanese government has maintained in recent bilateral discussions with the United States that any such problems are out-of-date, discussions with steel producers for this report suggest that the certification process continues to serve as an impediment to imports.

One recent complaint relayed by a U.S. producer involved JIS approval. According to company officials, the producer was granted approval on its first mill only because the mill manufactured a product that was considered unlikely to be exported to Japan. Even so, the approval process took one year. When the company built an additional facility that manufactured products more likely to be exported to Japan, MITI indicated that the company would have to reapply for JIS certification for that facility. Despite already having JIS certification for its first mill, approval for the additional facility took twice as long. According to U.S. company officials, the product manufactured at the additional facility was considered a threat to the Japanese domestic market and for this reason, JIS approval was delayed.<sup>61</sup>

### Apparent Arrangements Between Japanese Producers and EU and Korean Producers

For many years, U.S. steel producers and others have claimed that Japanese producers have entered into informal arrangements with certain foreign producers to limit access to each others' markets. The best known of these alleged arrangements is the "East of Burma" Agreement, between Japanese and European mills.

While the existence of these arrangements is routinely denied by both Japanese steel producers and the Japanese government,<sup>62</sup> there is information that market-sharing arrangements have existed between the Japanese and the EU steelmakers well into the 1990s. In a 1999 decision, the European Commission found that major Japanese and European steelmakers had engaged in cartel activity for the sale of seamless pipe. The finding covered an arrangement among four major Japanese producers, including Nippon Steel, and four European counterparts, to restrict sales in each others' markets from 1990 through 1995. As reported by the Nihon Keizai Shimbun, "What the EU sees as problematic in this case is [the eight steelmakers] dividing up of the market. The British, French, German, Italian and Japanese manufacturers conspired to refrain from selling in each others' national markets. They are said to have split up Europe, which is supposed to be a single market, and restricted competition."<sup>63</sup> In addition to this formal cartel finding, there is also substantial anecdotal evidence from traders that quotas continue in force.

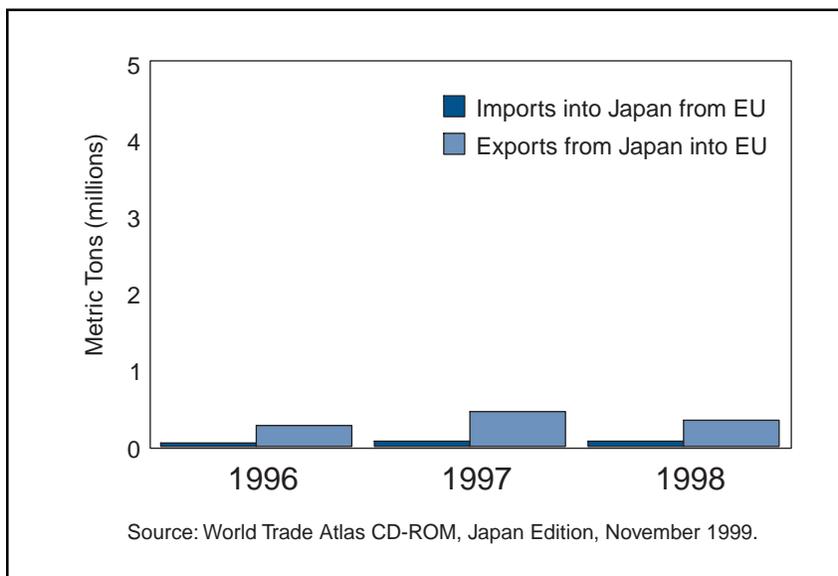
- One trader has stated that "the Japanese will not sell into Europe's market for fear that the European mills will sell directly into the Japanese domestic market in return."<sup>64</sup>
- Another trader, in a November 1999 response to a sales inquiry, stated that the "Gentlemen's agreement between EU-Japan/Korean mills are still effective, but even under the agreement nominal tonnage can be allowed."<sup>65</sup>

- Another response by this trader in February 2000 to a sales inquiry regarding galvanized steel for Spanish and Italian customers stated, “Japanese mills are unable to offer as their export allocation to EU is used up and presently not available.”<sup>66</sup>

Some traders, however, have made statements to the contrary, such as:

The [East of Burma] Agreement has lost much of its former value and function due to current market conditions—economic factors are such that it does not make sense for European mills to export to Asia.<sup>67</sup>

The EU finding and the claims of informal arrangements are reinforced by the exceptionally low level of steel trade between the EU and Japan—at well under a million MT in both directions up to and including the export surge period (*Chart 3-23*). In contrast, Korea increased exports to Europe in 1998 by over 1.5 million MT, or



**3-23. EU-Japan Trade, All Steel Products**

2,000 percent.<sup>68</sup> Moreover, in an interview for this report, Tokyo Steel President Masanari Iketani discussed a specific instance of threats of repercussions when Tokyo Steel—the leading independent mill in Japan—attempted to ship steel to Great Britain in violation of an agreement between Japanese and British mills.<sup>69</sup>

Another commonly referenced market arrangement is the alleged agreement between Japanese and Korean mills, specifically POSCO. Merrill Lynch recently reported that “POSCO has respected its relationship with its Japanese counterparts in its marketing

policy (such as voluntarily restricting Japan-bound exports to a certain level).”<sup>70</sup> Year after year, POSCO’s steel exports to Japan have hovered between 2 million and 2.5 million MT, arguably a relatively low figure given POSCO’s size, low costs, and proximity to the Japanese market.<sup>71</sup>

## Backdrop to 1998: Recession, Faltering Domestic Demand, and Surplus Capacity

Through the 1990s, the Japanese domestic market entered into a prolonged recession, resulting in a sustained steep reduction in home market demand. Declining domestic demand for steel brought to the fore longstanding concerns about surplus capacity in the steel industry.

In 1998, Japan was in the midst of its deepest recession in the post-war period, with real gross domestic product (GDP) down 2.5 percent in 1998 and a cumulative 4.7 percent from the first quarter of 1997 to the fourth quarter of 1998. Its leaders grappled with postwar record levels of unemployment and bankruptcies, persistent weakness in the banking system, and deflationary pressures in the economy.<sup>72</sup> Sharp declines in domestic demand meant reduced sales for all sectors of the economy, including the steel industry (*see box, next page*).<sup>73</sup>

Three factors contributed to tipping the Japanese economy into recession beginning in 1997 after posting 5.1 percent real GDP growth in 1996. First, fiscal policy turned sharply contractionary, as cuts in public works spending reduced public demand by almost 1 percent of GDP while tax increases hit private demand. Second, the Asia financial crisis, which began in the second half of 1997, contributed to a decline in foreign demand, with goods and services exports down 5.6 percent between the second quarter of 1997 and the fourth quarter of 1998.<sup>74</sup> Finally, the failures of a major bank and securities firm in the fall of 1997<sup>75</sup> adversely affected business and consumer confidence, and contributed to a sharp decline in the supply of bank credit.<sup>76</sup>

In late 1997 and 1998, Japanese banks were criticized by domestic firms for generating a credit crunch, apparently as they withheld new credit to questionable borrowers and worked on shoring up their balance sheets. Though gross bank lending had declined in 1997, it fell by more than 2 percent in 1998 and more than double that in 1999.<sup>77</sup>

After an initial delay, the Japanese government responded to the deteriorating situation with significant policy steps in a number of areas. To compensate for the drop in private sector demand, the government reversed its contractionary fiscal stance, increased spending in initial and supplemental budgets, and provided tax incentives for such items as housing.<sup>78</sup> To stabilize the financial sector and reduce the risk of systemic crisis, the Japanese government passed several key legislative measures in 1998, including the provision of substantial public funds, with toughened conditionality for bank recapitalization with those funds.<sup>79</sup>

It is often said that Japanese banks have provided loans based on their relationships with their borrowers, rather than on projections of future company cash flow or other risk-based assessment screening.<sup>80</sup> The *1999 Economic Report of the President*, in a generalized discussion of the merits of market-based versus relationship-based finance, noted that the best example of this in Japan was “the ‘main bank’ relationship that many established firms traditionally have with their primary lenders.”<sup>81</sup> This appears to be the case particularly in keiretsu groupings. The report goes on to outline the perceived benefits of such a system, but

### *Japan's Faltering Domestic Market in the 1990s*

The loss of Japanese steel demand during the 1990s was severe and prolonged. Japanese steel demand overall fell nearly 30 percent, and the fall in demand for certain products was even more severe. Hot-rolled sheet demand, for instance, dropped by 45 percent in the domestic market over the past decade. The fall in domestic steel demand was not a short-term phenomenon, but was instead a long-term structural decline that coincided with Japan's deeper economic problems, including the crash of Japan's stock market in 1990, the end of the construction boom, and the movement of Japanese automobile plants overseas. The high prices charged by the steel producers themselves also contribute to the problem of low demand.

This loss in domestic demand, coupled with the retention of production capacity levels in the 1990s, aggravated what is often recognized as a longstanding problem of surplus capacity for Japanese producers. Most of the sources that have characterized Japan's steel industry as having substantial surplus capacity in the late 1990s view the fall of domestic demand over the last ten years as the leading cause. A 1999 report by a MITI-sponsored committee discussing structural problems facing the steel industry stated that over 15 percent of total capacity—or about 17 million MT—was a long-term “surplus,” a figure consistent with other measures of Japanese excess capacity.

Numerous Japanese industry experts interviewed for this report recognized that surplus steel capacity has, in fact, long been a problem for the Japanese steel industry, dating back to a capacity buildup that resulted in industry-wide capacity of approximately 140 million MT by the early 1980s. While Japanese producers had taken some steps to cut capacity in the late 1980s, any major capacity cuts had ceased by the early 1990s.

warns that long-term banking relationships can destroy value when they misallocate resources, a point exposed by the Asian financial crisis.

In the 1990s, surplus steel capacity has been retained in the face of the prolonged slide in demand. Japanese producers are routinely characterized as maintaining production facilities in excess of what market conditions would warrant. A recent MITI-sponsored report notes that excessive debt goes hand-in-hand with maintaining surplus facilities.<sup>82</sup> The resulting high debt obligations, in turn, put added pressure on producers to continue selling during downturns.<sup>83, 84</sup> The maintenance of surplus production capacity by Japanese producers has been cited both in the United States and Japan as a factor in explaining the export surge.<sup>85</sup>

## **Exports as the Solution to Problems at Home**

The lack of meaningful adjustment during this time left Japanese producers saddled with significant surplus capacity.<sup>86</sup> Things came to a head in the late 1990s when the bottom dropped out of the domestic market just as primary Asian markets were collapsing.

With sharply declining demand in its home market and the collapse of significant export markets in Asia, Japanese producers responded by continuing to restrain supply to the domestic market to maintain high prices while dramatically increasing exports to new markets outside Asia, particularly the United States. Cutbacks in production occurred, but these cutbacks were apparently aimed at supporting domestic prices. In analyzing the behavior of Japanese steel producers between April and September 1998, Merrill Lynch steel analysts noted:

The priority for blast furnace companies was stabilizing domestic prices through cutting inventories amid weak domestic demand. ...*In pursuit of this goal, the companies sharply cut domestic shipments while vigorously expanding exports to the U.S.* [emphasis added].<sup>87</sup>

### **Hot-Rolled Steel Destined for Export Reportedly Freed From Production Restraints**

An examination of the Japanese steel industry's actions with respect to hot-rolled steel, the product accounting for the largest share of the surge in imports of Japanese steel into the U.S. market shows the potential effects of apparent coordination of production among integrated firms. In order to address the continued erosion of their domestic market and respond to increased competition from Korean and Taiwanese steel producers in their traditional export markets in Asia, Japanese producers reportedly decided, in the spring of 1997, to release one product, hot-rolled steel, from the production restraints agreed to under the cooperative system. The reported release was only partial. Producers were freed from production restraints on hot-rolled steel destined for export, but production for the domestic market remained controlled. This decision has been reported in detail by the leading business periodical *Nikkei Sangyo Shimbun*, as well as the *Nihon Keizai Shimbun*. This decision was also discussed in interviews for this report.<sup>88</sup>

The reported decision to liberalize exports of hot-rolled steel while maintaining domestic production restraints apparently had the intended effect of jump-starting production of hot-rolled steel. Overall production of hot-rolled steel rose 20 percent in 1997.<sup>89</sup> With domestic shipments continuing to be restrained in order to maintain domestic price levels,<sup>90</sup> the entire increase in hot-rolled production was destined for export. Unfettered competition on the export side, combined with revenue from continued high, stable domestic prices, encouraged Japanese producers to significantly increase exports of low-priced hot-rolled steel onto world markets, soon to be followed by other major products such as structural shapes.

## Collapse of Asian Export Markets

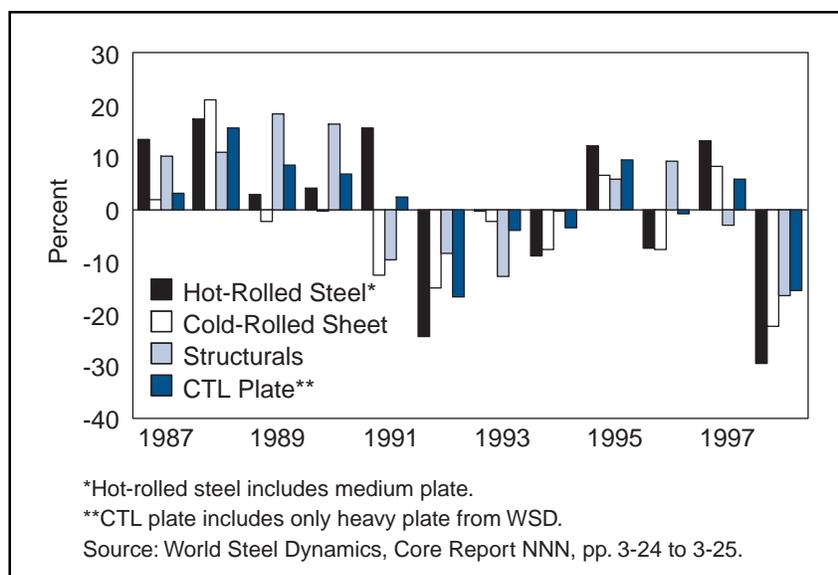
At the time that the reported decision to free up hot-rolled steel production for export was made, demand for steel in Japan's traditional export markets in southeast Asia and Korea was strong, as it had been for most of the 1990s.<sup>91</sup> With predictions for continued strong demand in southeast Asia and Korea, the decision to expand hot-rolled steel exports to Japan's largest export market appeared eminently feasible. In January 1997, NKK decided to reopen its Fukuyama blast furnaces in order to increase hot-rolled steel exports to Thailand.<sup>92</sup> NKK was not alone. As reported by Nikkei Sangyo Shimbun, "[B]last furnace steel companies embarked on a clear effort to strengthen exports from 1997 on."<sup>93</sup>

But with the onset of the Asian financial crisis in mid-1997, not only did the possibility of expanding their exports to its traditional southeast Asian export markets vanish, Japanese producers were suddenly faced with significant drops in their export shipments to the rest of Asia as the crisis swept from Thailand to Korea by year's end. With the entire region in the midst of economic collapse, 1998 exports to southeast Asia and Korea fell by more than 2 million MT, a decline of 12 percent compared to 1997. Within this group, the biggest loss was in shipments to Korea, which declined by 800,000 MT.<sup>94</sup>

Suddenly in search of a home, the expanded Japanese hot-rolled production could not be absorbed domestically if high prices in the domestic market were to be maintained.<sup>95</sup> This was compounded by the fact that domestic demand was

sinking fast as Japan entered a severe recession. The already weak Japanese domestic steel market dropped even further in 1998, as the decade-long decline turned into an outright collapse. With the Japanese economy as a whole contracting by almost 3 percent, apparent consumption for steel in the domestic market shrank drastically, falling by 17 percent from the year before.<sup>96</sup> In the face of weak domestic demand, domestic shipments were further restrained in order to maintain price levels.<sup>97</sup>

Domestic shipments of major products fell especially sharply from the year before: hot-rolled steel apparent consumption fell nearly 30 percent; cold-rolled steel apparent consumption fell by over 20 percent; and shipments of structural and plate products both fell by around 15 percent (*Chart 3-24*).<sup>98</sup>

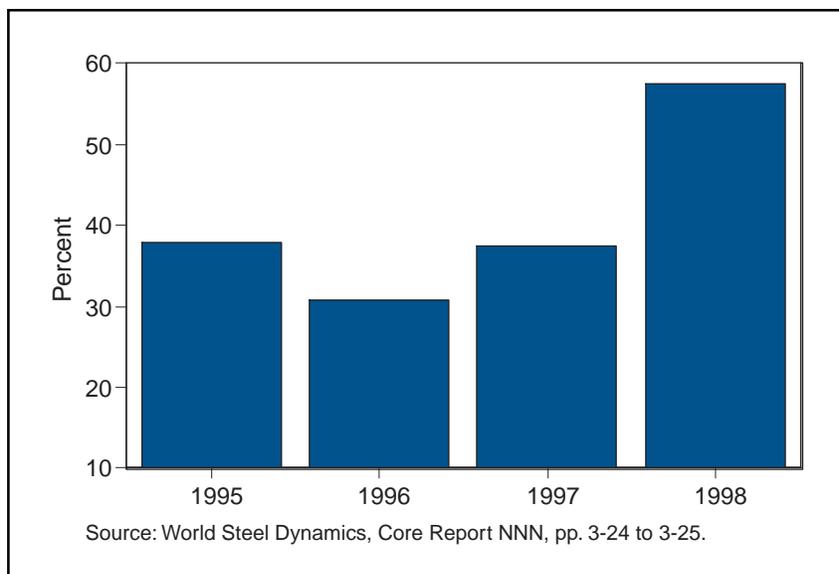


**3-24. Japanese Apparent Consumption, Steel Products (Percent Change)**

### Japanese Producers Set Their Sights on the U.S. Market

The 20 percent increase in production of hot-rolled steel that occurred in 1997, coupled with the 30 percent fall in domestic consumption in 1998, had predictable results on the export front. Between 1996 and 1998, the percentage of hot-rolled steel production that was exported rose, from 30 percent to nearly 60 percent<sup>99</sup> (*Chart 3-25*).

The U.S. market proved particularly alluring for Japanese producers, in light of the relative strength of the U.S. market compared with Asian markets. Shipments of Japanese steel to the U.S. market quickly surged.



**3-25. Japanese Hot-Rolled Sheet Exports as a Percentage of Hot-Rolled Sheet Production**

The fierce competition between Japanese companies selling into the United States contrasted sharply with the restraint shown in the domestic market at the same time.<sup>100</sup>

U.S. imports of Japanese steel rose sharply in 1998—overall steel imports from Japan were up 162 percent (by 3.75 million MT), while imports of hot-rolled steel were up 381 percent (by nearly 2 million MT).<sup>101</sup>

Japanese hot-rolled steel export prices fell well below the depreciation in the yen that occurred (*see box and Charts 3-26 through 3-29*). The yen's rebound did not immediately

result in a corresponding increase in Japanese hot-rolled export prices, which in fact continued to decline through the year.<sup>103</sup>

By sharply cutting prices, Japanese producers captured a significant share of the U.S. market in a number of products. Japanese producers met or beat the prices of Korea's POSCO and U.S. mini-mills, and approached the prices of lower quality products from Russia.

### Japanese Pricing and Market Trends

Some have suggested that the fall in Japan's export prices during the U.S. steel import crisis was merely the result of market trends—that Japanese producers were only price takers in a competitive market.<sup>104</sup> However, an examination of import shares suggests otherwise. In 1997 Japan had 8.2 percent of total U.S. imports; in 1998 their share had risen to 16.2 percent. For key imports such as hot-rolled sheet/strip and structural shapes, the gains in import share were especially large: the share of imported hot-rolled steel accounted for by Japanese products increased from 8.25 percent in 1997 to 22.79 percent in 1998. The corresponding increase for structural shapes was from 4.73 percent to 37.93 percent.

These share gains are apparently the result of aggressive pricing behavior. Merely following market trends would not lead to such share increases. While some decline in Japanese export prices as a result of the decline in the yen would be expected, the extent of the declines noted in the U.S. import prices exceeds the amount of yen depreciation. Thus, these price declines appear to reflect explicit marketing decisions by Japanese companies, either to reduce profit margins or sell

#### ***Japanese Export Prices for Steel Plummet***

An analysis by World Steel Dynamics found:

Japanese steel mills, with crude steel production down about 11% year-to-year through August due to poor demand, have sought to sustain exports. This strategy has worked for much of 1998 because of their willingness to sell at an ultra-low price and sharply boost deliveries to the United States. ...In the case of hot-rolled steel destined for the United States, the 1998 rate of delivery has been extraordinary.

at a loss. The rationale for pricing so aggressively in the U.S. market had to stem from the very significant declines in Japanese exports to Asia as a result of the Asia crisis, which caused a decline of 2 million MT of Japanese exports to the region from 1997 to 1998.

While marginal cost pricing might be expected in periods of downturn, especially for a high fixed cost industry such as steel, the ability to sell at marginal cost for a long period cannot be sustained. Japanese producers may have an advantage over U.S. firms in that they are able to sell at marginal cost for longer periods. The reason for this lies in part in the noncompetitive nature of the domestic Japanese steel market, which tends to allow prices for domestic sales of steel to remain constant and relatively high. In a more competitive domestic environment, Japanese producers would have competed for domestic market share, not just foreign market share, and this would have driven down domestic prices and affected the producers' cash flow.

Price-cutting on key products such as hot-rolled steel and structural shapes during the export surge are particularly illustrative.

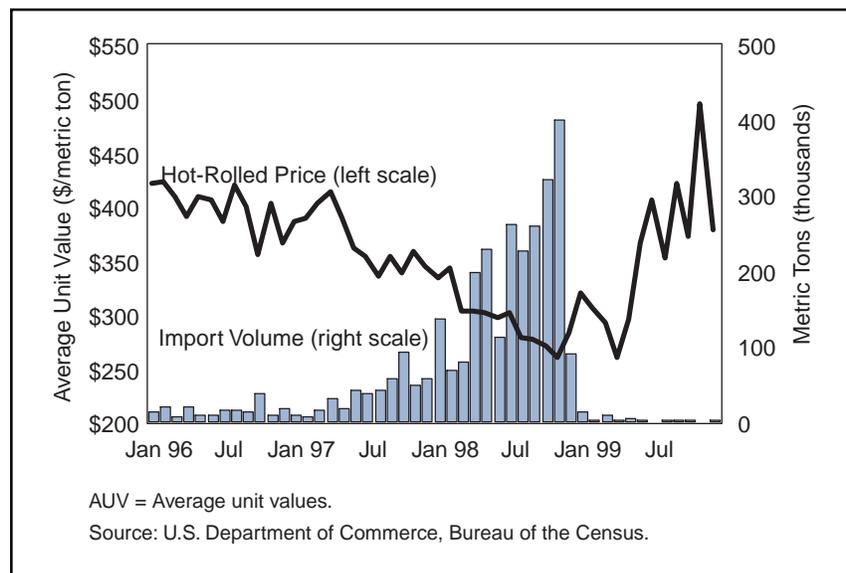
**Hot-Rolled Steel.** The price of Japanese hot-rolled steel exported to the U.S. started its decline in early 1997, around the time of the reported decision to boost hot-rolled steel exports and well before the softening of prices in the U.S. market (see box).<sup>105</sup> The average unit values of Japanese hot-rolled steel imported into the United States dropped from more than \$400 per MT in the spring of 1997 to less than \$300 by mid-1998. By the second half of 1998, when the largest volumes were imported, the price of imported steel had fallen to around \$250 per MT (Chart 3-26).

Per-unit yen revenues on exported hot-rolled steel declined as a result of these cuts (Chart 3-27). In early 1997, Japanese producers were earning revenues in the 45,000–50,000 yen range per MT of hot-rolled steel exported to the United States.<sup>106</sup> Yen revenues on exports declined gradually from that point, then bottomed out at approximately 30,000 yen per MT by the second half of 1998. By this time, exported hot-rolled steel was being sold at less than half the price charged to big buyers in Japan's domestic market, whose price was holding steady at 71,000 yen.

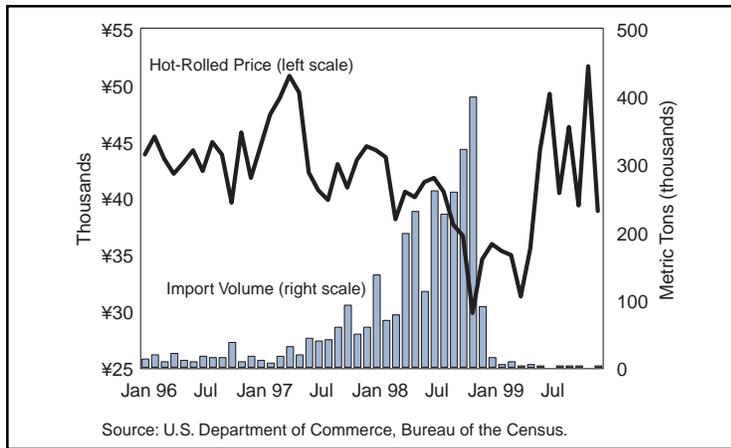
**Structural Products.** The drop in yen revenues for exported structural products follows a

### ***The Export Drive's Ultimate Impact: Global Market Instability***

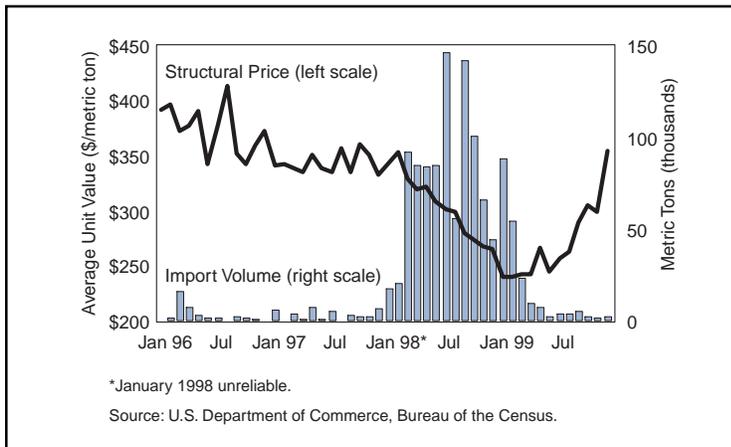
The more dire the situation in Japan's home market, the greater the need to increase exports until the point where Japanese export volumes and export pricing can help undermine even a large market experiencing strong levels of demand, such as that in the United States during 1998. It is no wonder then, that first among the factors identified by World Steel Dynamics as destabilizing prices in the U.S. market in 1998 was the fact that "Japanese import offerings have been extraordinarily high for most of the year [1998]."



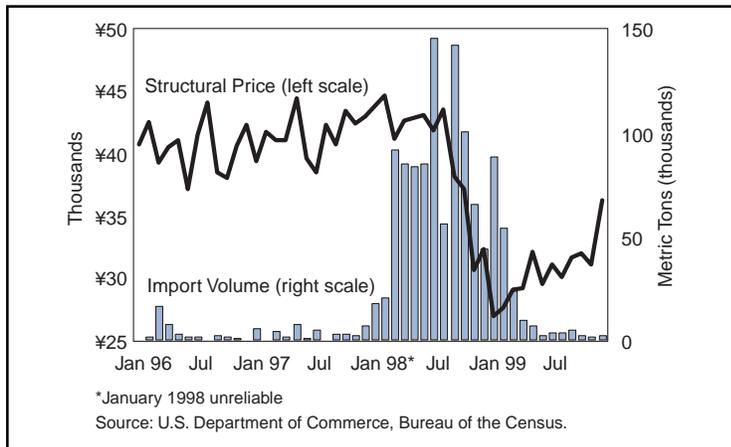
**3-26. U.S. Imports of Carbon Hot-Rolled Steel From Japan:  
AUVs in \$/Metric Ton and Import Volumes**



**3-27. U.S. Imports of Carbon Hot-Rolled Steel From Japan: Per Unit Revenues (in Yen) and Import Volumes**



**3-28. U.S. Imports of Carbon Structural Steel: AUVs (in \$) From Japan and Import Volumes**



**3-29. U.S. Imports of Carbon Structural Steel From Japan: Per Unit Revenues (in Yen) and Import Volumes**

similar pattern. As prices on structural exports to the U.S. were drastically reduced in 1998, yen revenues fell from over 40,000 yen per MT in 1997 and early 1998 to around 30,000 yen during the height of the surge, in late 1998 (Charts 3-28, 3-29).

Finally, what occurred in 1998 cannot be attributed to any “dismantling” of the alleged cooperative system, as is sometimes speculated.<sup>107</sup> The only area that had been reported as liberalized at the time (and currently, by most accounts) was exports, at the same time domestic shipments appear to have continued to be controlled. The export surge was, in fact, an export drive undertaken to compensate for insufficient domestic demand,<sup>108</sup> made worse by a strategy of restraining domestic shipments in a weak market in order to maintain domestic price levels.

## Conclusion

Japanese reliance on exports to offset weak home demand and maintain capacity continues to the present day. However, because of the U.S. trade cases, and the recovery of traditional export markets in Asia, Japanese producers are focusing less on the U.S. market. Despite few signs of recovery in Japan’s domestic market, production is currently on the rise, and several capacity expansions have recently been announced. As before, Japanese producers appear to be turning to exports to shore up the industry, rather than fully addressing the structural problems at home.

### 3.3 Korea's Steel Industry in The 1990s: Boom, Bust And Export

#### Introduction

Problems in the Korean steel industry stem from two major structural flaws.

**Unsound Bank Lending.** Korea's bank lending practices allowed the country's manufacturing sectors, including steel, to invest in overly ambitious projects that expanded capacity. Lending decisions of private banks were often subject to direct or indirect government influence, and many Korean banks lacked appropriate risk assessment and risk management techniques.<sup>1</sup> Weak lending practices were only one of the many significant factors that contributed to over-investment and excess capacity among Korean *chaebol*, including those producing steel. The *1999 Economic Report of the President* addressed the problems associated with Korea's bank lending practices, stating:

In Korea, excessive investment was concentrated among the *chaebol*, [whose] control of financial institutions, together with government policies of directed lending to favored sectors, led to overinvestment in such industries as automobiles, steel, shipbuilding, and semiconductors. By early 1997, well before the crisis hit Korea, seven of the thirty main *chaebol* were effectively bankrupt.<sup>2</sup>

Although many of these practices have changed as a result of the financial sector reforms that Korea has implemented under its International Monetary Fund (IMF) program, it is too early to tell whether those reforms have eliminated all of the past lending practices and the government's influence over the financial sector.<sup>3</sup>

The drop in domestic demand for steel during the financial crisis and the depreciation of the Korean won, which made exporting more attractive to Korea's producers, led to an inevitable increase in Korea's steel exports in 1998. However, there are several indications that many steel companies continued to produce and export steel long after they had passed the point of financial viability. This fact raises two fundamental concerns:

- Unsound bank lending practices contributed to the buildup of excess capacity during the 1990s and a string of bankruptcies in steel<sup>4</sup> and other sectors.
- Korea's flawed bankruptcy regime<sup>5</sup> allowed nonviable steel companies to continue operating and exporting, and to avoid plant closings or other significant reductions in production.

**POSCO's Dominant Position.** In 1998, Korea's Fair Trade Commission (KFTC) found that POSCO's monopolistic position had anticompetitive effects on the Korean steel market. The KFTC also raised concerns about POSCO's continued dominance in Korea because of the company's potential to abuse its market power. Despite the KFTC ruling, only minimal action has been taken to curtail POSCO's dominant position.

Further, as a government-owned company, POSCO was used by policymakers to advance the government's industrial development objectives, which included the provision of low-cost steel to downstream producers. The Commerce Department found this to be an export subsidy in a recent countervailing duty investigation.

These developments raise a fundamental concern about competition within the Korean steel market and possible trade-distorting effects that POSCO's continued dominance may have in the future.

## **Korea's Bank Lending Practices: The Loan-Financed Boom in the Steel Industry**

### **A Case Study: Hanbo Steel Company**

Hanbo Iron and Steel Co., Ltd. exemplified the impact that Korea's weak bank lending practices had on the steel industry as well as the relationships among the government, banks and companies that characterized Korea's flawed regime for nonviable and insolvent firms.

Hanbo, Korea's second largest steel company, collapsed in 1997 after amassing over \$6 billion in debt<sup>6</sup> (sixteen times its net worth).<sup>7</sup> This debt was incurred in the process of expanding the company's steelmaking capacity by nearly 9 million metric tons (MT).<sup>8</sup> While steel was not part of Hanbo's core business, the decision to expand into steel was typical of the diversification strategy pursued by Korean *chaebol* in the 1990s.

Hanbo financed its new steel mill with borrowings from private commercial banks and government-owned banks, including the Korea Development Bank (KDB), Korea's largest lender. According to one report, 80 percent of Hanbo's imported mill equipment was financed with a preferential 1.5 percent loan from a government-owned bank.<sup>9</sup> An investigation ultimately revealed that government officials, after taking large sums in bribes, had exerted pressure on bank executives to provide unsecured loans to Hanbo. Subsequently, ten people—a former Cabinet minister, four legislators, three bank heads and two Hanbo executives—were indicted on charges of giving or receiving millions of dollars in bribes in exchange for helping to arrange the loans to Hanbo.

In addition to pressuring banks to lend funds, Korea's government provided millions of dollars to the struggling steel maker to keep operations running after the company declared bankruptcy in January 1997. As Korea's second largest steel producer and flagship company of the Hanbo Group (then the eighteenth largest *chaebol* in the nation<sup>10</sup>), it was obvious that the firm's collapse would have repercussions on the whole economy. A high-level Ministry of Finance official, Yoon Tae-yong, was quoted as saying, "for the benefit of the national economy, we must keep the plant operating," adding that the money would come from government-controlled banks.<sup>11</sup> The emergency loans that were provided by government-controlled banks at reduced interest rates<sup>12</sup> were typical examples of measures taken to implement a "too big to fail" policy that perpetuated government intervention in the industrial sector.<sup>13</sup>

Some Korean steel producers, however, complained at the time to the government that Hanbo's debt relief "is allowing it unfairly to undercut prices in an already slow market."<sup>14</sup> In the meantime, Hanbo continued production because the company's creditors provided it with yet more financing. Some producers argued that Hanbo could undercut their prices by up to 16 percent and urged the government to either sell Hanbo's plants to overseas buyers or completely close the company.<sup>15</sup>

***Insolvency and U.S. Involvement.*** Although Hanbo declared its insolvency in January 1997, the steel company continued to operate while receiving infusions of capital, partly through government pressure on banks. During this time, the U.S. Government engaged the Korean government in discussions aimed at ending any market-distorting subsidies to Hanbo and ensuring a market-driven sale of the company.

In July 1998, Hanbo temporarily closed its hot-rolling plant. Hanbo's remaining rebar and structurals production facilities continued in operation. As a result of shutting down the hot-rolling facilities, the company's production decreased from 2.3 million MT in 1997 to 1.4 million MT in 1998.<sup>16</sup> Protracted

negotiations for the purchase of Hanbo Steel finally concluded in early March 2000, when a U.S.-led private consortium<sup>17</sup> signed a purchase agreement to pay approximately \$500 million in cash for the insolvent steel mill. The purchase of Hanbo, which also includes the participation of some Korean business interests, does not include an assumption of the company's outstanding debts. The transaction is still pending while all the details are being finalized.

**Window on Underlying Problems.** The case of Hanbo is important because it illustrates the close ties among the Korean government, private banks, and the country's *chaebol* that resulted in imprudent lending to steel producers. Hanbo is also important because it shows that these relationships influence the exit process for ailing firms in Korea. Motivated by understandable concerns about economy-wide disruption and systemic failure, the Korean government responded to the crisis by providing financial assistance to banks and corporations. However, it is important to recognize that government policies and private practices in the years leading up to the Asian financial crisis contributed to the structural weaknesses in the Korean economy. In March 2000, the Korean Ministry of Finance and Economy and the Financial Supervisory Commission (the independent financial regulatory agency) acknowledged these conditions. Asserting the importance of recent reforms, these agencies stated that "We just escaped from a financial crisis caused by government interference in the financial sector and by improper ties between political circles and enterprises."<sup>18</sup>

### Unsound Lending Practices Contributed to Uneconomic Investments

Hanbo represents an extreme example of government-industry ties. However, the company's overly ambitious, debt-financed expansion is characteristic of the expansion of many Korean steel producers during the 1990s.<sup>19</sup> In particular, it illustrates the extent to which Korean steel companies borrowed excessively to finance the investment boom of the 1990s.

Investment grew rapidly in the steel industry, averaging more than 43 percent per annum from 1993 to 1996 (*Chart 3-30*). As late as 1996, investment in new steel capacity continued to grow, increasing by 53 percent over 1995 levels.<sup>20</sup> The growth rate of investment contrasts sharply with a growth in estimated apparent domestic consumption of crude steel averaging only about 14 percent per annum from 1993 to 1996.<sup>21</sup> While the rate of new investments began to decline after 1996, investment levels remained high, especially considering the dire economic conditions of 1997 and 1998.

The vast majority of the facility investment by steel producers was in expanded capacity. For example, as late as 1997, more than 62 percent of new facility investment by steel producers went to create new production capacity.<sup>23</sup> By 1998, capacity among electric arc furnace producers had increased by about 32 percent above 1995 levels.<sup>24</sup>

Many of these investments were highly concentrated among mini-mill producers, most of which belonged to the *chaebol*.

At the same time, the debt levels of these companies began to grow significantly. Steel companies borrowed huge amounts from private commercial banks and government-owned banks

**3-30. Facility Investment in the Steel Industry and Percent Change<sup>22</sup>**

Year	Facility Investment	Percent Change
1993	2,131	-
1994	3,034	42
1995	4,102	35
1996	6,277	53
1997	4,551	-28
1998	2,965	-35
1999	1,902	-36

Source: Korea Iron and Steel Association.

### *Structural Problems in Context: A Brief History*

Throughout the 1990s, Korea's financial system suffered from fundamental corporate governance problems, including close links between the government, banks, and the *chaebol*. These links fueled imprudent lending practices, which resulted in overinvestment in risky projects. If the *chaebol* encountered financial difficulties, the government often intervened with the banks to ensure a steady stream of financing. Moreover, there was an implicit government guarantee extended to the *chaebol*, because they were considered simply "too big to fail." This government insurance resulted in the government and banks repeatedly providing bailout loans rather than leaving failing firms to market forces or court decisions based upon the bankruptcy laws.

As long as the economy continued to experience rapid growth and high demand, the system worked. However, in the late 1990s, the system began to unravel when the Hanbo Steel scandal broke and seven highly leveraged *chaebol* declared bankruptcy, with devastating effect on the economy. The concentration of bank loans to a few large conglomerates fundamentally weakened and threatened the viability of many Korean financial institutions. Ultimately, the government took control of many insolvent financial institutions, including Korea First and Seoul First, lenders with large exposures to the steel industry.

As bankruptcies rose by 50 percent during the economic crisis of 1997, the long-standing flaws in Korea's insolvency laws and procedures became increasingly apparent. The distortions in credit allocation continued in 1997 as bank loans to the country's thirty largest *chaebol* increased by 43 percent, many of which potentially were emergency loans at concessionary rates that helped ailing *chaebol* weather the crisis. As debts mounted and banks began to face serious liquidity problems, the government could no longer hold back the financial pressures, and the Korean economy spiraled into a deep financial crisis.

during the years before the financial crisis. A significant amount of this financing came from the KDB.<sup>25</sup> These practices reflected long-standing tendencies in the Korean banking and corporate sectors (*see box*).<sup>26</sup> Moreover, in a number of countervailing duty cases, the Commerce Department determined that bank lending practices in Korea constituted countervailable subsidies.<sup>27</sup>

### **Tough Times in the Korean Steel Industry**

Massive borrowing led to soaring debt-to-equity ratios for many Korean steel producers (*Chart 3-31*).<sup>28</sup> The most highly leveraged and unprofitable producers were Hanbo Steel, Sammi Steel, and Kia Steel. Even companies that were not technically insolvent had high debt-to-equity ratios, ranging from 200 percent to

**3-31. Debt Ratios and Operating Margins of Major Korean Producers**

Producer	Debt-to-Equity Ratio <sup>32</sup>				Operating Income Margin <sup>33</sup>			
	1995	1996	1997	1998	1995	1996	1997	1998
Hanbo	838	3,196	n/a	n/a	0.9	-9.2	-21.3	-16.5
Sammi	644	1,754	n/a	n/a	7.8	2.0	-14.7	0.5
Kia	824	2,792	n/a	n/a	-4.6	-1.2	-18.6	-20.1
Inchon Iron and Steel	205	213	263	168	2.2	1.1	0.6	0.7
Dongkuk Steel Mill	168	213	380	239	3.1	3.4	-0.8	-1.4
Dongbu Steel Co.	237	114	215	349	3.1	1.5	1.5	1.4
Kangwon Industries	267	417	219	273	2.4	-2.3	-2.2	-6.4
Hyundai Pipe Co.	264	255	699	393	-1.7	-1.7	1.2	1.5

n/a = not applicable due to negative equity figures for those time periods.

Source: Korea Iron and Steel Association Yearbook, 1998.

almost 700 percent (*Chart 3-31*). By comparison, debt-to-equity ratios for the top five major U.S. steel companies in 1997 ranged from 9 percent to 38 percent.<sup>29</sup>

In Taiwan, whose economy resembles Korea's more closely than that of the United States, debt-to-equity ratios for manufacturing companies have been below 100 percent since 1990.<sup>30</sup> Korean corporations' overall debt levels, in terms of the ratio of financial expense to sales, were three times higher than in Japan and Taiwan.<sup>31</sup>

The profitability of many steel producers declined as debt levels continued to rise during the expansion of the mid-1990s. Net income for the most highly leveraged steel companies started to turn sharply negative in 1996, well before the Asian financial crisis, reaching negative 21 percent (of sales) for Hanbo in 1997. Other major steel producers experienced negative (net) operating income margins; for example, Kangwon Industries had negative ratios for three years, also largely due to high debt levels. (*Chart 3-31*).

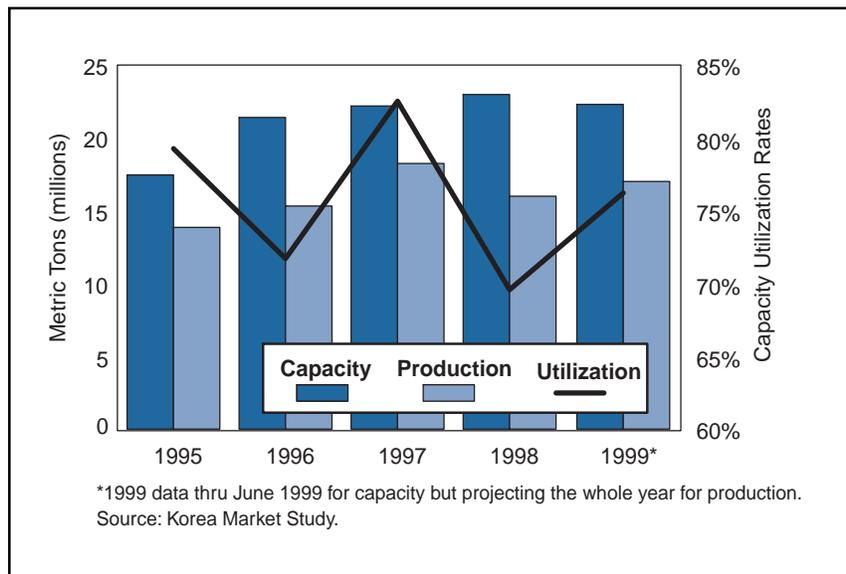
Hanbo and four other major steel producers declared bankruptcy in 1997.<sup>34</sup> Hankook Steel Mill and Kangwon Industries faced serious financial problems from excess borrowing to finance new capacity.

The huge buildup in new plants and facilities during the 1990s, and the resulting domestic competition, led to lower capacity utilization rates among Korean mini-mills, which averaged 76 percent between 1995 and 1998, and reached a low of 69 percent during Korea's economic crisis in 1998<sup>35</sup> (*Chart 3-32*).

Capacity utilization would have been much lower had it not been for the huge increase in exports. The dominant categories of U.S. imports from Korea in 1998 were typical mini-mill products, such as structural steel and rebar. Most of these imports came from the mini-mill producers, many of which were highly indebted or bankrupt.

By 1997 and prior to the onset of the financial crisis, the Korean steel industry was already in bad shape. The five major producers that had declared bankruptcy and several others facing financial difficulties were placed in government-led debt workout programs. It is unlikely that many of these firms would have survived without direct or indirect government intervention. As a result, very little nonviable steel capacity was eliminated.

Because the pattern of excessive debts and bankruptcy was repeated throughout the Korean economy, unsound bank lending practices also contributed indirectly to the decline in demand from steel users in Korea who were themselves experiencing financial difficulties.



**3-32. Electric Arc Producers, Capacity Utilization Rates (Crude Steel)**

### Ineffective Bankruptcy Process

The continued provision of low-cost loans from private commercial banks and government-owned banks allowed many nonviable steel producers to keep operating, in some cases well into the crisis. Debt-laden firms and their creditors opted for debt restructuring rather than in-court bankruptcy proceedings, and the

government's frequent intervention to assist business groups on the verge of failure "stifled the operations of a well-functioning exit market," according to the OECD.<sup>36</sup> In 1997, the OECD noted that

...the authorities encouraged firms and banks to enter into bankruptcy avoidance agreements, while KAMCO [Korea Asset Management Corporation] eased pressures on financial institutions by purchasing impaired loans with minimal conditionality.<sup>37</sup>

By 1997, a number of Korean steel producers were highly indebted and financially nonviable. Hanbo was only one of many steel producers that disregarded economic fundamentals. In the race for size and increased exports, some companies assumed extremely large debts and sacrificed profits.<sup>38</sup> The expansion of many steel producers is typical of yet another tenet of the *chaebol* business ethos, *i.e.*, the pursuit of growth for its own sake.

Apart from Hanbo, a number of other steel companies continued to produce and export while bankrupt.

- As early as 1992, Sammi Steel Co., Ltd.'s creditor banks, including the KDB, had provided emergency loans to the ailing steel producer.<sup>39</sup> The problems inherent in propping up Sammi were exacerbated when the financial crisis erupted. Sammi entered into bankruptcy in March 1997 and was under court supervision until May 2000. Government-owned POSCO was pressed to take over Sammi's specialty steel bar and seamless steel pipe operations (the Sammi Changwon Steel Mill), leaving Sammi with only its stainless steel production lines.<sup>40</sup> In early May 2000, the Korea Asset Management Corporation, under the authority of the Ministry of Finance and Economy, negotiated a plan with Inchon Iron & Steel to take a majority stake in the bankrupt company.
- Kia Steel Co., Ltd., part of the Kia group (Korea's eighth largest *chaebol* based on assets),<sup>41</sup> also benefitted from the government's policy of not letting weak firms fail. In 1997, the KDB exchanged debt for equity, making the government Kia's largest shareholder. Kia entered prolonged court protection procedures and serviced its pre-bankruptcy loans. Kia continued to produce steel throughout the financial crisis in 1998.<sup>42</sup>
- Two other steel producers went bankrupt. Shinho, a pipe and tube producer, went bankrupt in 1994, but its corporate liquidation plan was not approved until 1998. Hwanyung, an electric arc furnace producer, went bankrupt in 1996, and its corporate liquidation plan was approved two years later in 1998.
- Another major mini-mill producer, Kangwon Industries, entered into a debt workout agreement with its creditor banks in 1998.

Without an effective bankruptcy process to act as an exit mechanism for nonviable steel companies, steel production levels may have been artificially sustained. The ailing steel companies listed above together accounted for approximately 10 million MT of steel production capacity in 1996—almost one-quarter of total Korean crude steel production capacity.<sup>43</sup> Several companies had declared bankruptcy and were, in fact, insolvent. Nevertheless, they were provided emergency loans at low interest rates and obtained rescheduling of their debt payments. As a result, they were able to continue to produce and export steel with little interruption of their operations.

In contrast, under U.S. bankruptcy law, companies undergoing reorganization pursuant to Chapter 11 of the Bankruptcy Code may obtain credit throughout the process only under specific court-mandated rules. These rules measure whether such borrowing is necessary and consistent with normal business practices.<sup>44</sup> The loans provided to bankrupt Korean steel producers did not appear to follow normal commercial practices. Moreover, these loans were provided in spite of uncertain prospects of successful reorganization (under Korea's Company Reorganization Act).

The Korean steel industry as a whole was thus significantly worse off than it would have been if there had been a well-functioning bankruptcy process and exit market. This was true even before the financial crisis

of 1997 and 1998, when capacity utilization rates were already low. The fact that bankrupt steel producers could continue production during the crisis as the market precipitously declined only worsened the problems faced by other viable steel producers<sup>45</sup> who complained to the government that they had difficulty competing against companies that were relieved of their debt obligations. As a manager at Korea Iron & Steel Company stated in 1998, “We cannot survive under these conditions. . . .It’s not fair.”<sup>46</sup> In the end, very little excess steel capacity was eliminated prior to or during the financial crisis.

Undoubtedly, the decline in domestic demand for steel and the depreciation of the Korean won (making the country’s steel products much more attractive on world markets) precipitated the increase in Korean steel exports during this period. However, Korea’s weak bank lending practices contributed to conditions of over-investment, excess capacity, and oversupply in the Korean steel market. Moreover, the ineffective bankruptcy process kept many nonviable steel firms in operation. These factors ultimately contributed to a diversion of Korean steel into overseas markets.

## **POSCO’s Dominant Position in the Korean Steel Market**

While Korea’s unsound bank lending practices were a highly visible problem affecting the Korean steel industry leading up to the financial crisis, POSCO’s development into a dominant player is another long-term structural issue that raises concerns about competition in the Korean steel market and potential trade effects.<sup>47</sup> POSCO achieved its dominant position in part through government support and the company’s strategic role in the industrial development in Korea (*see box*<sup>48</sup>). The extent of POSCO’s dominance is reflected in the company’s effective monopoly for major steel products and strong hold over the domestic distribution of steel.

### **POSCO’s Monopolistic Practices**

A 1998 report on the Korean steel industry by Korea’s antitrust body, the KFTC,<sup>49</sup> maintained that POSCO engaged in monopolistic practices and actions. In the words of the KFTC report, “POSCO has the power to dominate the market . . . and the distribution sector.” In effect, POSCO has “market control over hot-rolled steel and multiple processed goods.”<sup>50</sup> The KFTC report further asserts that POSCO’s monopolistic structure “hinders competitiveness in the industry.”<sup>51</sup> The KFTC found that POSCO’s dominant position had current anticompetitive effects on the Korean steel market and raised future concerns about the company’s ability to further abuse its market power.

***Anticompetitive Effects in The Distribution Sector.*** The KFTC fined Posteel, POSCO’s sales subsidiary, for exclusionary distribution practices. According to the KFTC report, Posteel penalized sales outlets

### ***A Brief History of POSCO***

POSCO’s expansion was advanced under the government’s initiative and leadership to develop the national economy and to modernize Korean manufacturing industries. Government support during the 1970s and 1980s was largely made through its influence on providing low-interest loans for facility investment projects. As a government-owned company, POSCO was used by policymakers to further the government’s industrial development objectives, which included the provision of low-cost steel to downstream industries.

During the 1990s, however, POSCO was the exception to the pattern of excessive borrowing that characterized other Korean steel firms. POSCO remains the only integrated steel mill in Korea and is considered one of the world’s most efficient and well-run steel companies, and as such did not experience many of the problems faced by the country’s mini-mills in 1997 and 1998.

through an “instant penalty system” under which sales outlets were penalized for distributing competing producers’ products. These distribution practices allowed Posteel to restrict sales outlets from handling competitors products which had the effect of restricting commercially driven, market-based trade in the domestic steel market.

The KFTC finding further found that “Posteel uses its position in business dealings to force sales outlets to follow transaction terms determined by [Posteel] and the customer on linked and transfer sales.” Posteel forced its sales outlets to adhere to the following transaction terms:

- A margin rate of 1 to 2 percent.
- Deferred interest payments on transaction loans.
- Conditions on guarantees.

Posteel threatened to fine sales outlets which violated these transaction terms. The KFTC cautioned that in the course of a “normal” transaction,

POSCO’s (Posteel’s) transferring its own customers to sales outlets and demanding that they deal with these customers according to transaction terms set by POSCO itself abuses its position in the transaction. It is an unfair activity that imposes a handicap on the parties to the transaction.<sup>52</sup>

The KFTC report cautions that POSCO’s control over the distribution sector has increased, which opens the possibility that “new entrants and competitors will be sealed off from the market.” While the Korean government failed to heed all the warnings present in the KFTC report, it did move to dissolve many of POSCO’s shares in the sales outlets and distributors.<sup>53</sup> POSCO continues to maintain its monopolistic position and, as of July 2000, still had over 95 percent ownership in Posteel.<sup>54</sup>

***POSCO’s Pricing Practices.*** In spite of POSCO’s market dominance in a number of basic steel products, POSCO has not benefitted from high domestic prices. The principal reason is the Korean government’s price stabilization policies which required POSCO to maintain low, stable domestic steel prices. The government has acknowledged that it had a policy to set POSCO’s hot-rolled coil prices as low as possible to “cultivate a strong and growing domestic market for its products.”<sup>55</sup> This policy was assisted with a three-tiered pricing system, which served different markets: domestic prices in Korean won for products that would be consumed in Korea; direct export prices in U.S. dollars or Japanese yen; and local export prices in U.S. dollars. Local export prices were provided to those domestic customers who purchased steel for further processing into products that were exported. The Commerce Department found this pricing system to constitute an export subsidy in the countervailing duty investigation of stainless steel sheet and strip in coils, which covered the period 1997, because a different price was charged to customers based upon export performance.<sup>56</sup> The Korean government has stated that POSCO’s tiered pricing structure was officially discontinued in 1999. The Commerce Department has not had the occasion to review POSCO’s pricing practices to verify the termination of the tiered structure in a countervailing duty proceeding.

### **POSCO Maintains Its Monopolistic Position**

The KFTC was also concerned about POSCO’s market dominance and warned that the company has the potential to abuse its position. The KFTC was particularly concerned that the privatization of POSCO, which has been an ongoing process by the Korean government, would simply create an unregulated private monopoly. The KFTC’s findings led it to the following recommendations for restructuring the blast furnace sector, *i.e.*, POSCO, including:

- Splitting POSCO’s two integrated plants (Pohang and Kwangyang) into two companies so that the privatization of POSCO does not create a private monopoly.

- Regulating POSCO after privatization to prevent unreasonable diversification.
- Removing restrictions on new entry into the blast furnace sector.
- Limiting POSCO's control over the distribution structure and correcting the company's exclusionary distribution practices, particularly Posteel's operation of an "exclusionary distribution network that restricts its own sales outlets from handling competing companies' products."<sup>57</sup>

The KFTC recommendations were not implemented due to opposition by government agencies, including the Ministry of Commerce, Industry, and Energy. The Planning and Budget Commission interpreted the recommendations as a "suggestion."<sup>58</sup> In response to U.S. government questions about the KFTC report as part of ongoing bilateral discussions, the Korean government clarified:

The Board of Audit and Inspection recommended in June 1998 that POSCO divest its equities in [its sales] agents, for POSCO's investment to them is inefficient in the Board's judgement, considering its small return. POSCO has agreed to do it step by step. ... The Korean Government decided against splitting up POSCO into two separate companies because it would not be economically viable to do so. The government further considered concerns over monopolization to be addressed with the elimination of POSCO's interest in the domestic distributors, low tariff rates which are scheduled to be reduced to zero and the proximity and capacity of the Japanese steel industry which is a significant participant in the Korean steel market. The KFTC report was not binding on POSCO. Moreover, other independent studies such as that conducted by the Korea Development Institute recommended against splitting up POSCO because it would reduce the efficiencies of the company and steel making in Korea.<sup>59</sup>

Over the past several years, the Korean government has actively protected POSCO's dominant position in the Korean marketplace. For instance, in the mid-1990s, the government discouraged Hyundai from building an integrated steel plant in order to protect POSCO's dominant position.<sup>60</sup> Hyundai had planned to construct an integrated blast furnace plant, mostly for the company's own steel requirements. According to industry sources, Hyundai wanted to rely less on POSCO, in part because of Hyundai's need for specialized products.<sup>61</sup> In 1996, the KFTC cited this example as evidence of the existence of "tacit restrictions to entry" into the blast furnace sector.<sup>62</sup>

### **How POSCO Weathered the Crisis**

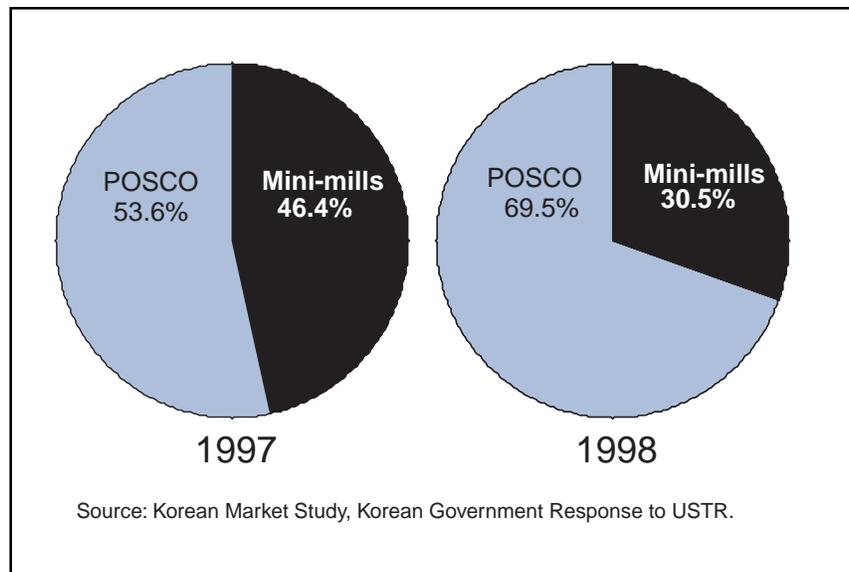
During 1998, POSCO's dominant position appears to have helped it weather the effects of the Asian financial crisis much better than Korean mini-mills. This is strikingly evident when contrasting the position of POSCO with that of the mini-mills in both the domestic and export markets in 1998.

**Domestic Sales.** Prior to and during the Asian financial crisis, POSCO's sales mix (domestic vs. export sales) remained fairly stable, with no major shift between domestic and export sales. However, from 1997 to 1998, POSCO's share of domestic sales of finished steel by all Korean producers surged from 54 percent to 70 percent. While POSCO's domestic sales declined 7 percent (1.2 million MT), other Korean producers' domestic sales tumbled 53 percent (from 16 million MT in 1997 to 7.6 million MT in 1998). As a result, these producers' share of total domestic sales by Korean producers fell from 46 percent in 1997 to 30 percent in 1998<sup>63</sup> (*Chart 3-33*).

**Export Sales.** Korea's finished and semifinished steel exports are the mirror-image of the domestic situation among Korean producers. POSCO's exports of finished and semifinished steel increased nearly 14 percent in 1998 (slightly more than 1.2 million MT).<sup>64</sup> While this may seem like a significant increase, the exports of other Korean producers of finished and semifinished steel increased by more than 200 percent (more than 4.6 million MT).<sup>65</sup> Exports of these producers (excluding POSCO) increased from 20 percent of total exports in 1997 to 40 percent of total exports in 1998.

### **Exports to the United States.**

Even more dramatic is the change in Korean exports to the United States. While POSCO's exports of finished steel increased by 10 percent in 1998 (from 966,000 to almost 1.1 million MT), the exports of all other Korean steel producers rose by almost 500 percent, an increase of nearly 2 million MT.<sup>66</sup> (Chart 3-34). For example, available data indicate that the greatest percentage of the increase in plate exports to the United States in 1998 was accounted for by POSCO's domestic competitor, Dongkuk.<sup>67</sup>

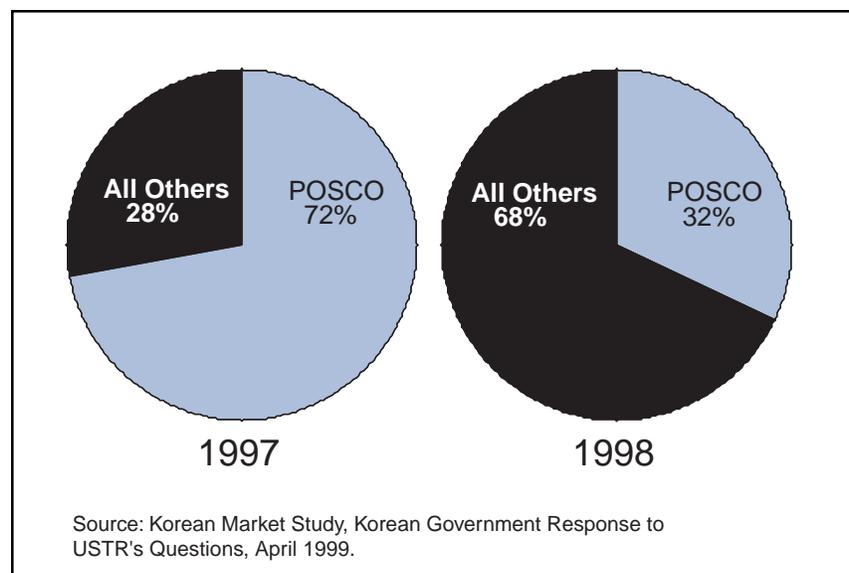


**3-33. POSCO vs. Mini-Mills: Share of Domestic Sales**

### **The Asian Financial Crisis in Korea and Surging Exports**

The confluence of several factors led to the increase in Korean mini-mill exports to the United States in 1998.

- The financial crisis of late 1997 and 1998 resulted in a significant decline in domestic demand for steel in Korea.
- The drop in demand for steel in several of Korea's major Asian export markets led to falling exports to those countries.
- The depreciation of the Korean won fueled the export drive and gave Korean producers opportunities to lower prices while maintaining a high level of won revenues.



**3-34. Korean Steel Exports to the US: POSCO vs. All Other Korean Producers**

**Domestic Consumption.** The effect of the Asian financial crisis on Korean steel producers in 1998 was significant. Demand from steel-consuming industries in Korea dropped 35 percent, a decline in apparent consumption of more than 13 million MT in 1998 compared to 1997.<sup>68</sup> While some of this loss was borne by steel imports (which declined by 3.7 million MT in 1998<sup>69</sup>), a number of Korean steel producers had to significantly increase their exports to survive.

**Exchange Rates.** Steel exporters were helped by the rapid decline in the value of the Korean won, which immediately made Korean steel products much more competitive in world markets. The won depreciated by

approximately 32 percent from 1997 to 1998.<sup>70</sup> As a result, won-denominated export revenue surged in the early part of 1998. While Korean steel exporters did lower their prices in the U.S. market during the course of the year, the positive impact of the depreciated won on export revenues facilitated Korean steel producers' ability to export in the face of a severely contracting domestic market.

These factors also helped bring about a 152 percent rise in Korean finished steel exports to the United States in 1998, or 2 million MT.<sup>71</sup> Korean finished steel exports to all countries rose by 57 percent in 1998, an increase of almost 6 million MT. Exports to the EU, in particular, increased by 1.5 million MT in 1998, about 2000 percent over 1997 levels (although exports to the EU started out at a much lower level than those to the United States).<sup>72</sup>

### **The Financial Crisis Exposes Structural Flaws in the Corporate and Financial Sectors**

The surge in corporate bankruptcies and the deterioration of banks' balance sheets brought the problems of the Korean corporate and financial sectors to the attention of foreign investors. Many institutional investors lost confidence in the Korean market and withdrew their investments. The central bank's steps to protect the Korean won failed, but not before the country's foreign exchange reserves were severely depleted. The won rapidly depreciated against the dollar—by 32 percent in 1998.<sup>73</sup> When foreign banks declined to roll-over their short-term loans, a short-term fundraising gap forced Korea to request assistance from the International Monetary Fund.

The ensuing economic crisis in 1998 was the worst the Korean economy has faced in its modern history. Declines in private consumption and new investment led to a 5.8 percent drop in gross domestic product from 1997 to 1998. The government's attempt to stabilize financial markets by raising interest rates to more than 30 percent caused further hardship. Higher interest costs forced more firms to default on their loans, raising the number of bankruptcies beyond already high pre-crisis levels. Banks severely limited new loans in an attempt to improve their deteriorating capital adequacy ratios. As domestic demand began to decline, capacity utilization rates among manufacturing firms fell to new lows, especially among the country's *chaebol*. Activity in the construction and automotive sectors, for example, fell by 41 and 31 percent, respectively, in 1998.<sup>74</sup>

### **Effects on the Korean Steel Industry**

The Korean steel industry, already suffering from excess capacity, was hit hard by the financial crisis. Apparent consumption of finished steel declined by more than 13.2 million MT in 1998 compared to 1997, a drop of 35 percent.<sup>75</sup> Underlying the fall in demand was a severe decline in steel-consuming industries, such as automobiles, construction, and machinery. Falling demand forced steel producers to reduce production of finished steel by 5.2 million MT,<sup>76</sup> which led to a decline in capacity utilization rates. Overall capacity utilization rates declined by almost 10 percent for crude steel (including declines of more than 6 percent in the blast furnace sector).<sup>77</sup> Mini-mill producers were hit with a 13 percent drop in capacity utilization, from 83 percent in 1997 to about 70 percent in 1998.<sup>78</sup> This drop was particularly painful given the rapid capacity increases during the mid-1990s, *i.e.*, by some 32 percent between 1995 and 1998.<sup>79</sup>

### **Korean Steel Exports to the United States**

The impact of the crisis on Korean steel exports was immediate and substantial: finished steel exports surged by 5.9 million MT in 1998, an increase of 57 percent over 1997 levels.<sup>80</sup> The United States and the European Union absorbed over 60 percent (about 3.6 million MT) of the total increase in steel exports from Korea.<sup>81</sup> In response, the U.S. industry filed eight antidumping and countervailing duty cases<sup>82</sup> and the European Union filed four antidumping and countervailing duty cases against Korean steel products.

U.S. steel imports from Korea increased by nearly 2 million MT in 1998, reaching 3.1 million MT, a 109 percent increase over 1997 levels. U.S. imports of Korean heavy structural shapes and rebar (traditional mini-mill products) accounted for more than 52 percent of the total increase over 1997 levels (*Chart 3-35*).<sup>83</sup>

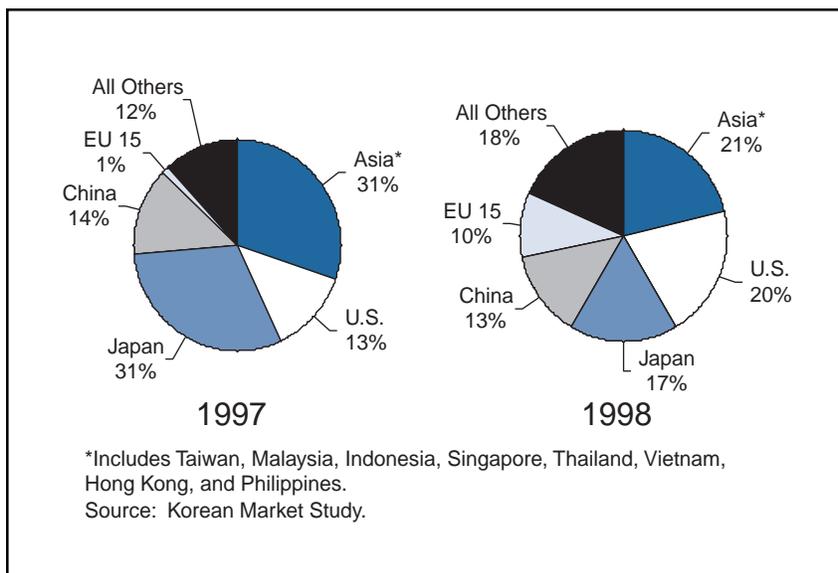
<b>3-35. U.S. Import Surge Products from Korea and Percent Increases, 1997–1998<sup>84</sup></b>				
<b>Product</b>	<b>1997</b>	<b>1998</b>	<b>Percent Increase</b>	<b>Volume Increase</b>
Total	1,486,307	3,111,496	109	1,625,189
Heavy Structural Shapes	7,565	373,449	4,778	365,793
Rebar	36,556	523,304	1,332	486,798
Cut-to-length Plate	23,805	294,728	1,138	270,923
Cold-rolled Steel	26,792	274,622	925	247,830
Line Pipe	88,246	187,825	113	99,579
Corrosion-resistant Steel	44,407	140,634	154	85,227

Source: U.S. Department of Commerce, Import Administration Steel Import Monitoring Program. Figures based on data provided by the U.S. Department of Commerce, Bureau of the Census.

Unlike the increase in U.S. imports from Japan and Russia, Korean hot-rolled steel products were not a significant factor in 1998. These were mostly accounted for by a joint venture between POSCO and USX, USS-POSCO Industries (UPI). In fact, Korea's hot-rolled steel exports to the United States in 1998 declined by more than 7 percent.

### Exports to the Rest of the World

In 1998, while Japan's steel exports to most Asian countries greatly declined, Korea's did not. The decline in Korean exports to Japan and the hardest hit Asian countries<sup>85</sup> was offset by an increase in exports to other Asian markets, in particular Taiwan, China, and Hong Kong. The net increase in exports to all of Asia in 1998 was 423,000 MT over 1997. However, Korea's exports to Asia, measured as a percent of total exports, declined in 1998 (*Chart 3-36*).



**3-36. Korean Finished Steel Exports (1997–1998)**

### Diversion of Domestic Sales to Exports

The loss in sales by mini-mills in the domestic market was largely compensated for by increased exports (*Chart 3-37*). These exports became much more competitive in light of the 32 percent depreciation<sup>86</sup> of the Korean won, which permitted Korean steel exporters to lower dollar prices to increase their exports even more. Between 1997 and 1998, Hanbo's exports increased by 78 percent from 354,000 MT to 631,000 MT, with an associated increase of 127 percent in won-

denominated revenue. For other mini-mill producers, the increase in won-denominated export revenue was equally dramatic, reaching over 700 percent for Dongkuk Steel.

### Conclusion

In light of the sudden, sharp drop in domestic demand, it was altogether logical for many of Korea's steel companies to significantly increase their exports in 1998.

In addition, the significant depreciation of the Korean won increased their competitiveness on world markets and stimulated further export demand. However, many of Korea's steel producers continued to produce and export beyond the point of financial viability. By allowing these companies to borrow excessively, without appropriate risk assessment and risk management before the crisis, the Korean banks and the Korean government created a situation in which there was simply too much steel competing for fewer and fewer customers. If not for emergency loans (in some cases provided under pressure from the Korean government) and insolvency procedures that insulated these companies from crushing debt burdens, many may have been shut down and liquidated, as advocated by a number of other, viable Korean steel companies. Ultimately, the increase in steel exports due to market conditions was exacerbated by these market-distorting factors.

<b>Producer</b>	<b>1997</b>	<b>1998</b>	<b>Percent change</b>
<i>POSCO</i>	8,924	<i>10,171</i>	14
Hanbo	94	213	127
Sammi	63	178	183
Kia	23	66	187
Kangwon	74	219	196
<i>Dongkuk</i>	295	<i>1,658</i>	462
Inchon	288	673	134
Dongbu	247	529	114
<i>Hyundai</i>	290	<i>359</i>	24
<i>Union</i>	382	<i>659</i>	73

Source: U.S. Department of Commerce, *CMA Korea*.  
Note: Figures in italic print are in thousand metric tons.

## 3.4 The Brazilian Steel Industry: Protection at Home Supports Exports Abroad

### Introduction

Brazilian steel producers have long reaped the benefits of a home market insulated from competition from abroad and lacking any meaningful competition at home. This sheltered domestic market provides the Brazilian steel industry a secure, profitable base from which to compete to increase or retain export volumes irrespective of the kind of market volatility seen in 1997 and 1998. However, to the extent that Brazilian steel companies take advantage of an insulated home market, the potential for unfair trade exists.

- **Cartel-Like Behavior.** Tactics employed by Brazil's steel sector to manage competition at home include collusion to raise prices.<sup>1</sup> Cartel-like behavior is fostered by segmentation of the market and the maintenance of strong cross-ownership ties to solidify cooperation.
- **Import Barriers.** These practices would not succeed without a number of import barriers, supported by government and industry, to minimize foreign competition, including high import tariffs and taxes, import licensing barriers and "captive" distribution channels.

### An Oligopolistic Steel Industry at Home

Anticompetitive practices among the large Brazilian steel firms allow the domestic industry to operate in an atmosphere effectively sheltered from market forces. This environment enables Brazilian producers to maintain domestic prices at artificially high levels<sup>2</sup> while lowering export prices on certain products to increase or maintain export sales. Of particular concern is the cartel-like behavior of CSN, Usiminas, and Cosipa—three companies that account for almost half of total crude steel production in Brazil.<sup>3,4</sup> (*See boxes, this page and the next.*)<sup>5</sup>

#### Cartel-Like Behavior

In 1997, Brazilian authorities found that these three producers conspired to fix domestic prices. The Secretaria de Acompanhamento Economico (SEAE)—the Economic Monitoring Secretariat of the government of Brazil—concluded in a July 1997 report that "a cartel had been formed in connection with the increase in sales prices of ordinary flat steel products implemented by CSN, Usiminas, and Cosipa."<sup>6</sup>

#### *Profile: Brazil's Largest Steel Company*

CSN, Brazil's largest steel producer, was established as a government-owned steel company in the 1940s. After transfer of ownership in 1974 to SIDERBRAS (a government holding company) and subsequent privatization auctions in the early 1990s, CSN was free of direct government ownership by 1994. At present, CSN is owned by iron ore producer CVRD (Companhia Vale do Rio Doce, which holds 10 percent) and a consortium of private investors including Bradesco Bank, Vicunha Group, Previ (the pension fund of state-owned Banco do Brasil, Brazil's biggest bank) and CSN employee funds. CSN also holds 31 percent of the voting shares of Valepar, a company which in turn owns 61 percent of the voting shares of CVRD.

CSN is a major Brazilian producer of flat-rolled products, including hot-rolled sheet and strip, cold-rolled sheet and strip and coated sheet and strip, and is the world's largest single-mill producer of tin plate, a type of coated, flat steel product. In 1998, CSN sold 38 percent of all hot, flat-rolled steel, 31 percent of all cold, flat-rolled steel, 75 percent of all galvanized steel and 97 percent of all tin-coated steel produced in Brazil.

### ***Rounding Out the Big Three***

Usiminas, Brazil's second largest steel mill, began operations in 1962 as a joint venture between the government of Brazil and various stockholders, principally Nippon Usiminas. SIDERBRAS acquired a majority interest in Usiminas in 1974. Usiminas was the first steel company to undergo privatization, beginning in 1991. By 1994, Usiminas was substantially privatized. Today, Usiminas is owned by CVRD (23 percent), Nippon Usiminas, Previ, employee associations and various other private investors. Usiminas is the largest producer of uncoated steel products in Brazil and dominates the automotive sector.

Cosipa was established as a government-owned steel company in 1953 and was transferred to SIDERBRAS in 1974. Cosipa began privatization in 1993. By 1994, the Brazilian government had sold its remaining directly held voting shares, but retained approximately 25 percent of the preferred shares. At present, Cosipa is owned by Usiminas (50 percent), BNDES (17 percent) and several employee participation investors and other private investors.

According to market research, Cosipa and Usiminas share the same major clients in the Brazilian market, namely the large automotive companies.

Based on SEAE's findings, CADE (Brazil's relevant prosecuting agency) conducted an investigation of the companies and, in 1999, determined that their behavior on that occasion was cartel-like and in violation of Brazil's antitrust law.<sup>7</sup> As a result, CADE took the unusual step of imposing fines on each of the companies equal to 1 percent of the value of their respective 1996 sales. While this case was based on a July 1996 instance of the big three producers together informing domestic customers of a price increase,<sup>8</sup> there is evidence that the same tactics were employed again less than a year later.<sup>9</sup>

These findings confirmed the existence of significant oligopolistic coordination among the major "ordinary" (*i.e.*, carbon) flat steel producers in Brazil. Furthermore, CADE officials discussed mechanisms in the industry through which each steel firm notifies its clients of price increases prior to the actual increase such that each producer can keep tabs on the pricing behavior of its competitors.<sup>10</sup>

This coordination of pricing is one of the primary means by which the major Brazilian steel producers have maintained high domestic prices while, at the same time, exporting at much lower prices.

### **Market Segmentation**

The high degree of segmentation in Brazil's steel market provides further evidence of the lack of robust domestic competition. As the Brazilian steel industry is currently structured, certain companies tend to specialize in the production of certain product lines. This segmentation of products across companies has been described as "the legacy of government coordination of the industry prior to privatization."<sup>11</sup>

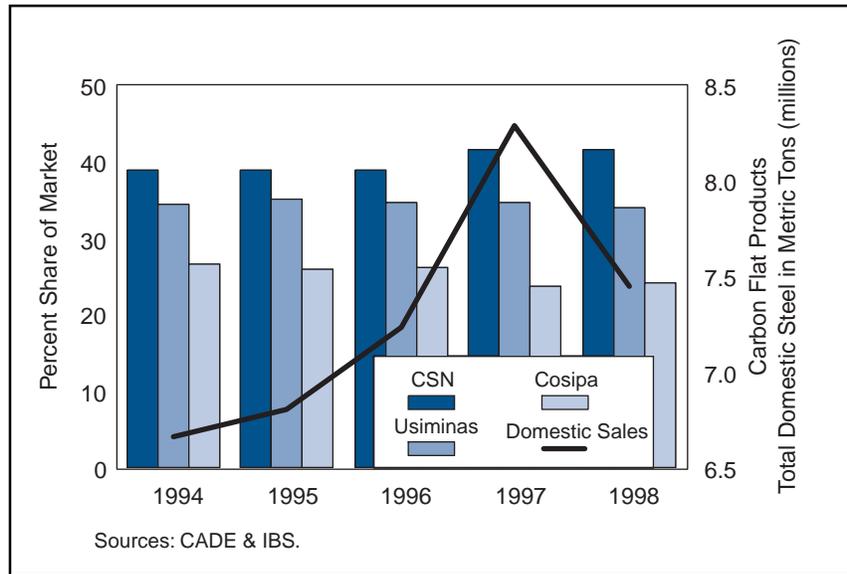
As a result of this segmentation, industry leaders for each major product category have significant pricing influence in the domestic market. In combination with the limited volume of steel imports in the Brazilian market, they can use this influence to keep domestic prices high. According to the recent CADE determination, new competitors "face such huge difficulties in entering the industry as to permit an abuse of market power."<sup>12</sup> An example is the ordinary flat-rolled steel sector in Brazil, which is dominated by the same companies found guilty of collusion to fix home market prices: CSN, Usiminas, and Cosipa.

A recent credit rating report covering the Brazilian steel industry specifically noted that the carbon flat-rolled steel sector in Brazil has traditionally been dominated by CSN, Usiminas, and Cosipa.<sup>13</sup> These

companies have maintained their relative shares of the total domestic carbon flat-rolled market at practically the same level from 1994 through 1998: CSN holds the largest share at approximately 39 percent, Usiminas follows with approximately 35 percent, and Cosipa is third with approximately 26 percent (*Chart 3-38*). Despite increases and decreases in total domestic sales of carbon flat-rolled steel products over the years, these three producers have maintained relatively constant shares of the market. In addition, an analysis of the

production shares of carbon flat-rolled steel products from 1993 to 1998 indicates remarkably consistent shares maintained by each of the three companies. In terms of quantities produced, CSN had approximately 40 percent, Usiminas 35 percent and Cosipa 25 percent during that period.<sup>14</sup> This contrasts with the varying production shares by major U.S. steel producers during the last several years.<sup>15</sup> The consistent market and production shares of Brazilian producers do not themselves prove the existence of anticompetitive behavior. However, when considered together with the legal

determination of CADE and the extensive cross-ownership between producers in Brazil, indications are strong that these companies operate in an anticompetitive environment and do not compete aggressively for market share in their home market.



**3-38. Brazilian Market Share, Common Steel Flat Products (1994-1998)**

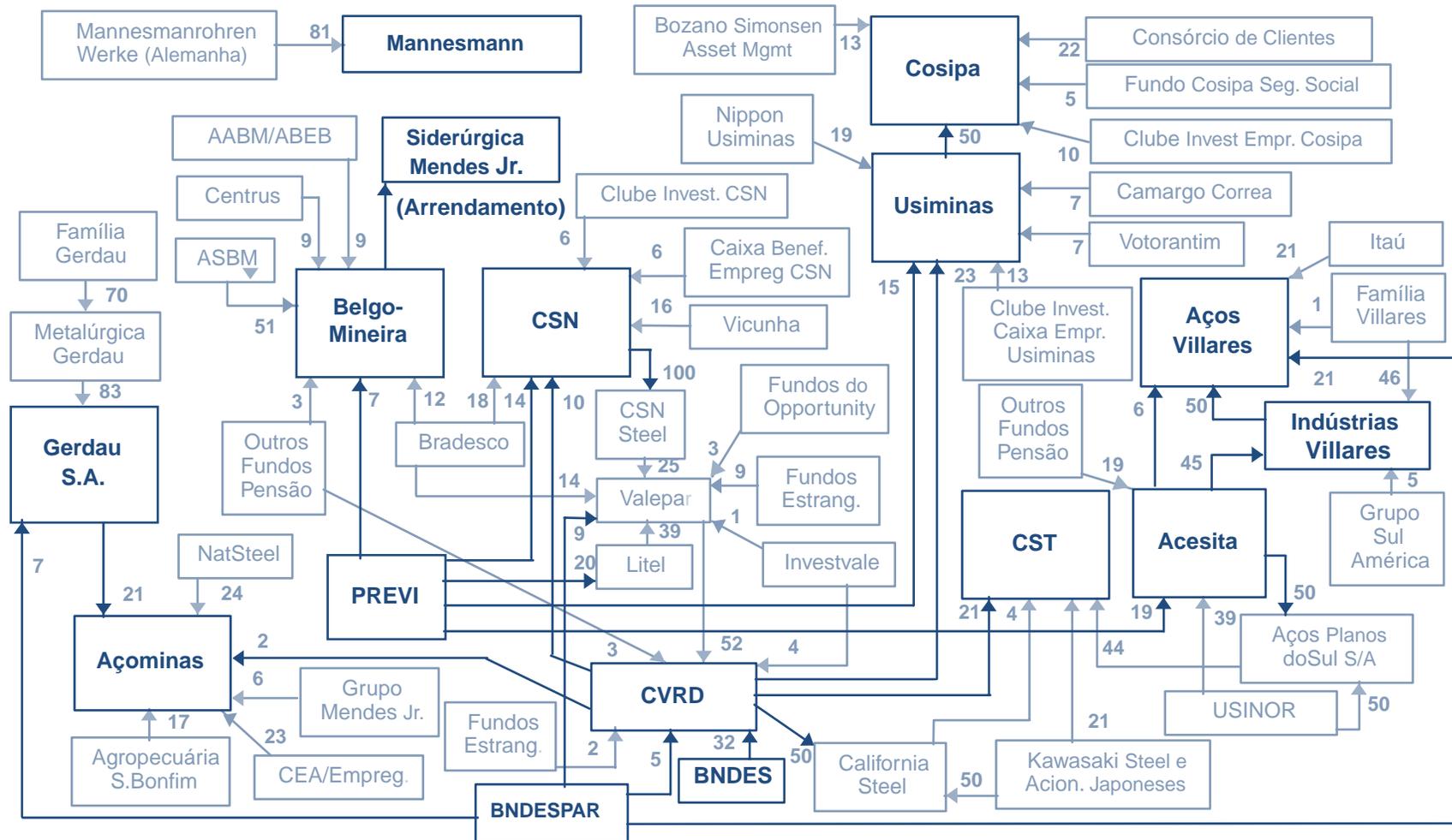
### A Cross-Ownership Web

Extensive cross-ownership in the Brazilian steel industry—another legacy of recent government ownership—has further insulated the industry from meaningful competitive pressures.<sup>16</sup> A 1998 *American Metal Market* article analyzing the state of the Brazilian steel industry described it as “enduring the growing pains associated with the transition from public ownership to private ownership.”<sup>17</sup>

In 1990, the Brazilian government, as part of its National Privatization Program, determined that the steel sector would be the first major government-controlled industry to begin privatization. By 1994, all the voting shares held directly by the Brazilian government in the major steel-producing companies had been sold through a series of equity auctions, largely to employee investment groups and pension funds, consortia of private investors (including foreign companies) and other Brazilian steel producers. However, iron ore producer CVRD, at the time a majority government-owned company, acquired significant common share ownership in several other steel firms.<sup>18</sup> In 1997, CVRD itself was partially privatized, but 32 percent of CVRD is still owned by BNDES, the government-owned development bank. Considering the present extent of cross-ownership and CVRD’s continued financial interest in the steel industry, the transition from public to private ownership still has a long way to go.

Four of the country’s major steel producers, CSN, Usiminas, Cosipa, and CST, all share significant levels of cross-ownership and interlocking directorships (*Chart 3-39*<sup>19</sup>).

3-39. Shareholding Participation in the Brazilian Steel Industry, November 1999



The most notable case of cross-ownership involves CSN, Brazil's largest steel maker and biggest producer of ordinary flat steel products, and CVRD, the world's largest iron ore producer. CVRD holds stakes in all of Brazil's biggest steel mills, including 10 percent of CSN, 23 percent of ordinary flat steel producer Usiminas and 23 percent of CST, Brazil's biggest slab producer. CSN indirectly has a significant ownership interest in CVRD. CSN is arguably in a position to exercise significant influence in the Brazilian steel industry generally, and the ordinary flat steel sector specifically, through its links with CVRD and other steel producers.<sup>20</sup>

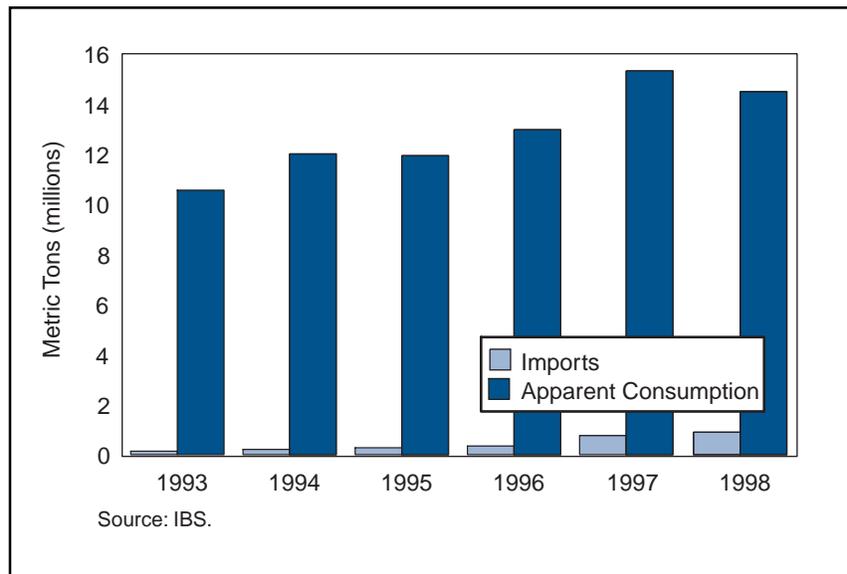
## Import Barriers Stifle Foreign Competition

Steel imports into Brazil traditionally have been extremely low. While import levels have risen somewhat in the last five years, reaching 6.2 percent of apparent consumption in 1998,<sup>21</sup> domestically produced steel has continued to fill most of

domestic demand (*Chart 3-40*). Several different factors explain the low level of steel imports into Brazil, some market based, others pointing to potential unfair barriers to trade.<sup>22</sup>

**Market Factors.** Certain market characteristics make it difficult to export to Brazil:

- Trade financing costs often have made imports too expensive because of very high domestic interest rates.
- A number of Brazilian steel consumers prefer making their purchases in relatively small quantities, on a just-in-time basis.
- Longer lead times and minimum shipment quantity requirements inherent in import purchases can make import purchases a less attractive, less practical option.<sup>23</sup>



**3-40. Brazilian Total Steel Imports vs. Apparent Consumption (1993–1998)**

**Import Barriers.** Foreign steel makers also face several structural and procedural barriers when trying to bring steel to market in Brazil. These import barriers, which include import tariffs and taxes, licensing schemes, and captive distribution systems, have combined to insulate the domestic market from outside competition, keeping domestic prices high and effectively limiting foreign competition. Thus, Brazilian producers have been able to enjoy a significant advantage over U.S. producers and other competitors that must face the forces of open competition in their home markets.

## Import Tariffs and Other Taxes

U.S. specialty steel industry insiders have stated that the biggest impediment to exporting their products is Brazil's tariff and tax structure.<sup>24</sup> Although import duties have been lowered over the years, they still range from 9 percent (for carbon semifinished) to 19 percent (for seamless pipe).<sup>25</sup> Importers must also pay a merchant marine tax<sup>26</sup> and various other taxes and fees.<sup>27</sup> The combination of these tariffs and taxes discourages steel producers from exporting their products to Brazil.

## Import Licensing System

Importers may be confronted with another hurdle at the border: an import licensing system that at times is used to impede imports. Brazil requires a license to import almost any product into the country. Under the import licensing system, or Sistema de Comércio Exterior, licenses are issued automatically within five days.<sup>28</sup> However, at any time, selected products can be made subject to “nonautomatic” licensing and consequent significant delays.<sup>29</sup> Wire rod and stainless steel are two steel products currently subject to the nonautomatic procedures. The lack of consistently applied rules discourages imports into the Brazilian market.<sup>30</sup>

## “Captive” Distribution Channels

According to Hans Mueller of TN Consulting in Murfreesboro, Tennessee, “[p]roducers in ... Brazil ... have strong captive distribution networks, which also act as a barrier to imports.”<sup>31</sup> The “captive” nature of this distribution network is another key reason for the low level of imported steel in Brazil.<sup>32</sup> Currently 70 percent of ordinary flat-rolled steel sold domestically in Brazil is sold directly from the mill to end users such as the auto industry. The remaining 30 percent is sold through both independent and mill-owned distributors. Brazil’s large ordinary flat-rolled producers, CSN, Usiminas, and Cosipa, have purchased steel distributors in an effort to consolidate distribution.

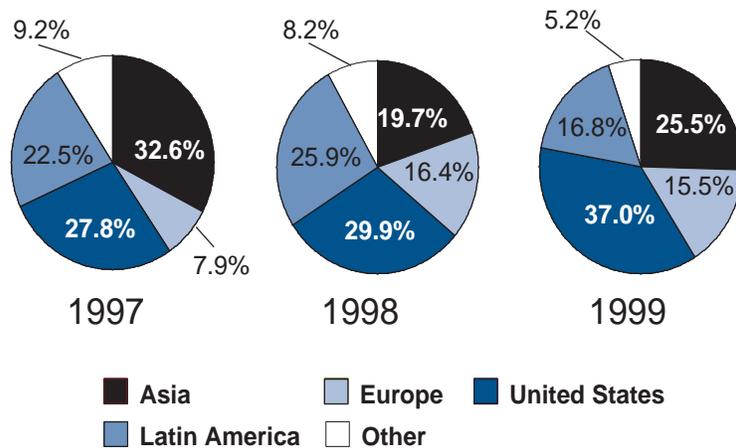
Benjamin Fernandes, president of one of the largest independent service centers in Brazil, has argued that “this consolidation has unbalanced the market, with the large, mill-linked distributors trying to do the job of the medium and small ones, which generally offer better delivery times.”<sup>33</sup> Others have commented that the few independent distributors that have operations in Brazil do not pose a significant challenge to the captive distributors, in part because they lack the sophistication of their counterparts in the United States or Europe. As said by one analyst, “Companies like Thyssen [a major multinational trader] don’t want to take on a fight for market share [in Brazil].”<sup>34</sup>

## Brazil’s Steel Industry Maintains Exports in a Volatile Global Market

In mid-1998, the buildup to Brazil’s own financial crisis began as Asian economies continued to fall and the Russian financial crisis hit. In an effort to defend its currency, the Brazilian Central Bank raised interest rates to nearly 50 percent.<sup>35</sup> By stifling new investments in domestic infrastructure and other projects, high interest rates contributed to a 7 percent decline in domestic demand for steel. Total domestic sales of steel products dropped from 14.7 million metric tons (MT) in 1997 to 13.6 million MT in 1998.<sup>36</sup>

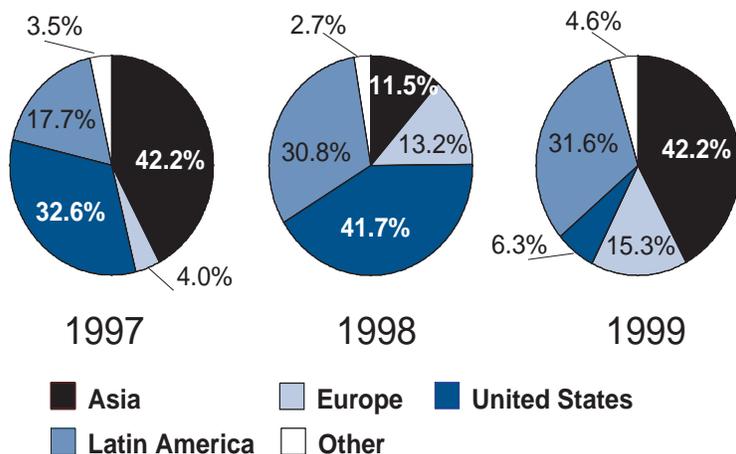
Asia was Brazil’s largest steel export market prior to the Asian financial crisis, accounting for almost 33 percent of total Brazilian steel exports in 1997. After the crisis hit in 1997, the share of Brazilian exports going to Asia dropped to about 20 percent in 1998. From 1997 to 1998, Brazilian steel exports fell by roughly 14 percent to South Korea, 53 percent to Thailand, 60 percent to Singapore and 83 percent to Malaysia.<sup>37</sup>

To compensate for the loss of export markets in Asia, Brazilian steel producers increased their exports to Latin America, Europe and, for certain steel products, the United States<sup>38</sup> (*Chart 3-41*). For example, from 1997 to 1998, the share of total Brazilian hot-rolled steel exports going to Europe increased from roughly 4 percent to 13 percent. Over the same two years, the share of total hot-rolled steel exports going to the rest of Latin America increased from roughly 18 percent to 31 percent<sup>39</sup> (*Chart 3-42*). Although largely successful at finding alternative markets, Brazilian steel makers’ exports of hot-rolled steel dropped 8.4 percent from 1997 to 1998.<sup>40</sup>



Source: World Trade Atlas.

3-41. Brazil—Distribution of Total Exports (1997–1999)



Source: World Trade Atlas.

3-42: Brazil—Distribution of Hot-Rolled Steel Exports (1997–1999)

dollar export prices for certain products to retain export levels and maintain production and capacity levels. In 1998, almost 26 million MT of crude steel were produced, a decline of just 1.5 percent from the previous year.<sup>44</sup> Sales in the United States remained profitable because companies were able to cut prices in line with the depreciation of the Brazilian real. Despite rapidly dropping U.S. prices, especially in the second half of 1998, the consistent depreciation of the real during 1998 kept pace with the U.S. dollar price declines and allowed Brazilian producers to generally maintain their revenues in real terms on U.S. sales. In 1998, Brazil's largest steel producers were profitable,<sup>45</sup> although their net profits did decrease from 1997 levels.

Between December 1997 and December 1998, the average unit value of imports of carbon hot-rolled steel<sup>46</sup> from Brazil dropped from \$324 per MT<sup>47</sup> to \$263 per MT (Chart 3-44). Similarly, during the same period, the price of imported carbon cold-rolled steel from Brazil dropped from \$441 per MT to \$323 per MT.<sup>48</sup> Imports of carbon semifinished steel experienced a similar pricing decline. Because

While overall U.S. steel imports from Brazil declined from 1997 to 1998 (mainly due to a decline in semifinished steel imports), imports for some product categories increased. Hot-rolled steel exports to the United States increased by 67,000 MT, or roughly 17 percent in 1998.<sup>41</sup> From 1997 to 1998, the percentage of Brazil's hot-rolled exports shipped to the United States grew from roughly 33 percent to more than 41 percent. Meanwhile, exports of cold-rolled steel to the United States nearly doubled between 1997 and 1998, climbing from 122,000 MT to 225,000 MT, representing an increase in the percentage of Brazil's total cold-rolled exports going to the United States from 45 percent in 1997 to 59 percent in 1998<sup>42</sup> (Chart 3-43).<sup>43</sup>

### Efforts to Maintain Export Levels to the United States

With the collapse of demand in its most important export market and the sudden decline of demand at home, Brazilian steel producers cut their U.S.

they were able to cut their prices, Brazilian producers could increase their export volumes to the United States of hot- and cold-rolled steel and maintain their overall export volumes to the U.S. market in spite of the flood of low-priced imports from Japan and Russia.

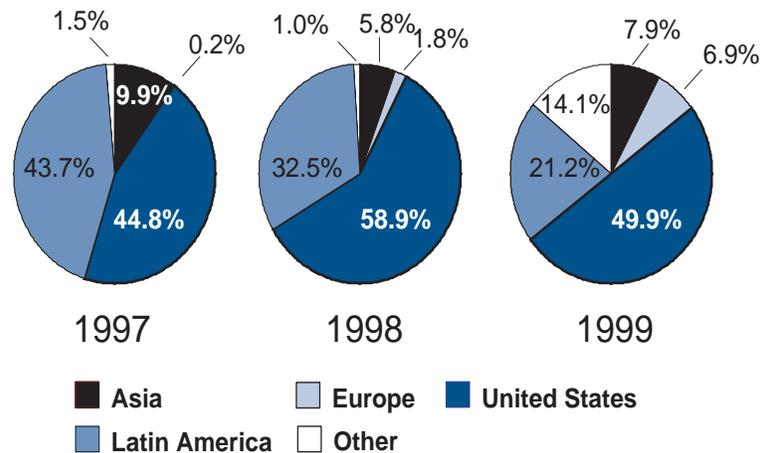
### U.S. Dumping Cases

Faced with increases of low-priced imports of carbon hot- and cold-rolled steel from Brazil, as well as from Japan and Russia, the U.S. steel industry filed antidumping cases in 1998 against Brazilian steel exporters of these products. Given the history of high steel prices in Brazil's domestic market, dumping allegations were not the result of any new situation (*see box, next page*).<sup>49</sup> But the Brazilian price drops in 1998, as imports flooded the U.S. market, amplified the potential for injury to U.S. producers.

- In light of the differentials between Brazilian domestic prices and U.S. export prices, the

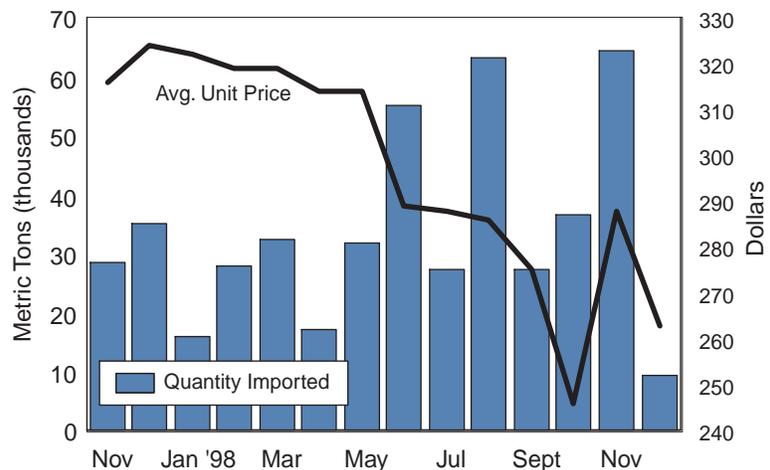
Department of Commerce found Brazil to be dumping hot-rolled steel at rates ranging from 41.27 percent to 43.40 percent.<sup>50</sup> In July 1999, the United States suspended its dumping (and subsidy) investigations of Brazilian hot-rolled steel and put in place an agreement by Brazilian hot-rolled producers to adhere to established reference prices and a quota of 295,000 MT per year.<sup>51</sup> Pursuant to this agreement, Brazilian producers agreed not to sell hot-rolled steel for delivery to the United States at prices less than reference prices for each product category that ranged from \$327 per MT to \$390.35 per MT.<sup>52</sup>

- With regard to carbon quality cold-rolled steel, the Commerce Department found that Brazilian producers dumped at rates ranging from 46.68 percent to 63.32 percent, although the ITC ultimately found that dumped cold-rolled steel did not injure U.S. steel companies.



Source: World Trade Atlas.

3-43. Brazil—Distribution of Cold-Rolled Steel Exports (1997–1999)



Source: ITC Dataweb.

3-44. U.S. Steel Mill Imports: Carbon Hot-Rolled Steel from Brazil

### ***Dumping Cases Outside the United States***

In April 1999, fearing that Brazilian producers were flooding its market with dumped hot-rolled steel, the government of Argentina imposed a temporary \$410 per MT minimum price on all Brazilian noncoated hot-rolled steel while it continued an antidumping duty investigation.

In November 1999, Argentina ended its investigation by accepting a proposal of CSN, Usiminas, and Cosipa that established a price per MT on Brazilian hot-rolled steel, and limited imports of the product to 36,000 MT for one year.

In 1998, Mexico also found that Brazil dumped "special steel" at margins as high as 37.61 percent.

### **Conclusion**

In the aftermath of the Asian financial crisis, a protected home market insulated Brazil's steel producers from upheaval abroad. At the same time, they continued exporting aggressively to maintain overall export volumes, shifting their exports away from ailing economies in Asia to Latin America, Europe and, for certain products, the United States.<sup>53</sup>

In order to maintain exports to the United States, Brazilian steel producers cut their U.S. export prices during 1998 in the face of low-priced competition, particularly from Japan and Russia. The depreciation of the Brazilian currency during this same period made exporting even more attractive to Brazilian steel producers, giving them greater flexibility to reduce prices.

The confluence of these factors contributed to dramatically falling U.S. import prices at the same time that Brazilian home market prices remained high. As the events of 1997 and 1998 demonstrate all too clearly, a sheltered domestic market provides the Brazilian steel industry a secure, profitable base from which to aggressively increase or maintain export volumes.

## CHAPTER 4

# U.S. Response to the Crisis

### Introduction

The response of the Administration and Congress to the U.S. steel crisis has aided the recovery of U.S. steel prices and stimulated a recovery of the U.S. steel industry.

The Administration developed a multi-pronged approach to dealing with the surge in low-priced imports focusing on three key elements:

- **Vigorous enforcement of U.S. trade laws.** The U.S. Commerce Department expedited investigations and issued early critical circumstances findings.
- **Bilateral efforts to address the underlying problems that led to the crisis.** The U.S. Trade Representative (USTR) launched consultations with Japan and Korea to work to remedy core structural problems, and the Commerce Department negotiated a comprehensive agreement to address steel imports from Russia. The Commerce Department also agreed to provide technical assistance to Russia and Ukraine, designed to help avoid trade disputes.
- **Import monitoring mechanisms.** Improved reporting of steel import data has aided in early detection of potential import surges.

Congress took legislative action to help alleviate the crisis. One effort now signed into law is the Emergency Loan Guarantee Program which will temporarily help provide financing to troubled steel companies unable to obtain loans at reasonable rates.

These efforts helped put the industry back on the road to recovery. Following the early critical circumstances determinations in the hot-rolled steel investigations in November 1998, imports of these products decreased significantly—a pattern that was repeated in other investigations where determinations of dumping or subsidies occurred. By mid to late 1999, the decline in unfairly traded imports was having a beneficial impact on the domestic market, with production levels and capacity utilization rising significantly. However, inventory stockpiles of imports and other factors made for lackluster financial results for most U.S. steel producers in 1999, and the employment picture for steel workers has only recently begun to improve.

### Labor and Industry Seek Relief

The United Steelworkers and the Independent Steelworkers unions launched the “Stand Up for Steel” campaign to call attention to the impact of low-priced steel imports on industry profits and competitiveness. In January 1999, steel workers marched on Washington to call for stronger actions against rising steel

imports. Steel workers pushed for immediate quotas on steel products and changes to the trade laws that would make it easier to seek and obtain relief.

As layoffs loomed, the Administration and Congress received thousands of letters from steel workers and their supporters within communities affected by the steel crisis. This campaign helped underscore the problems that unfair trade was causing the steel industry.

I spoke with a reporter the other day.

When I complained about dumping, he responded to the effect that it is “good for consumers.” I told him, “So is smuggling. But whether it’s smuggling or dumping, it’s illegal and it must be stopped!”

Paul Wilhelm  
President, USX’s U.S. Steel Group

The industry and unions sought relief by exercising their rights under the U.S. trade laws. Starting in September 1998, the industry and unions filed antidumping cases against hot-rolled steel from Brazil, Japan, and Russia and a countervailing duty case against Brazil. As the surge in imports shifted to other products, the industry and unions responded with additional petitions against a wide range of steel imports, including cold-rolled steel, cut-to-length plate, heavy structurals, and seamless pipe.

## The U.S. Government Responds

It was readily apparent to both the Administration and Congress that the sudden onset and magnitude of the surge of low-priced steel imports called for immediate action. The Administration made it clear it would not tolerate unfair trade practices that injure the U.S. industry.<sup>1</sup> The government also renewed its efforts to address the structural problems and market-distorting practices that contributed to the crisis.

### Trade Cases Turn Back the Surge in Imports

In the opening stages of the crisis, the Administration examined options that could immediately address the problems of import surges and unfair trade but that were also consistent with U.S. law and obligations under the World Trade Organization (WTO).

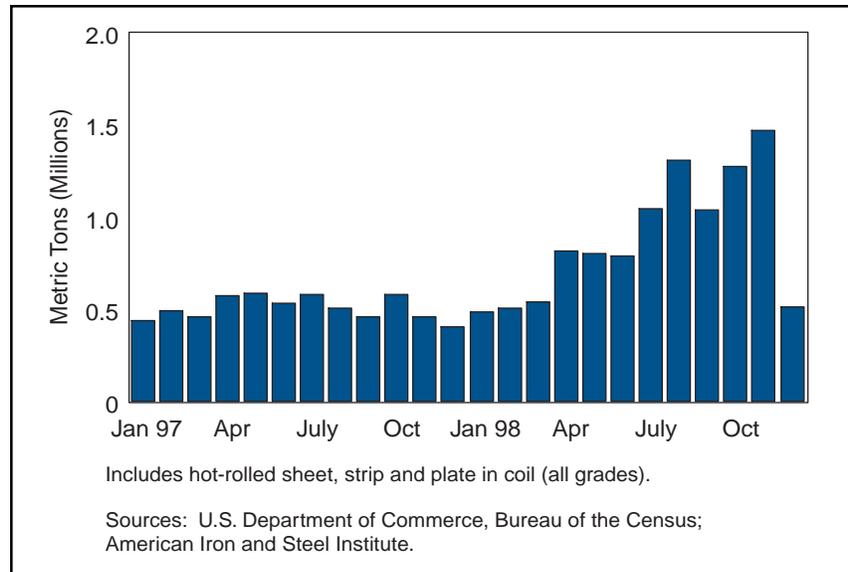
The Commerce Department shifted resources to expedite investigations, reducing the time it took to conduct its analysis without compromising the rights of respondent parties by shortening the deadlines for questionnaire responses, briefs or oral arguments. This left the Commerce Department in a position to provide relief more expeditiously.

The Department of Commerce also prescribed that in certain situations it could make an early critical circumstances determination prior to the preliminary dumping determination, thereby putting importers on notice in cases of potential import surges that they might be liable for duties in the period prior to the preliminary determination. An affirmative critical circumstances determination extends the liability for potential duties retroactively, up to ninety days prior to the preliminary dumping determination. Commerce applied this policy in the hot-rolled steel investigations, preliminarily determining that critical circumstances existed with respect to Japan and Russia.

**Hot-Rolled and Other Steel Cases.** The combination of expedited investigations and early critical circumstances findings had a significant impact on imports of hot-rolled steel, resulting in much earlier relief from surging imports. Monthly import volumes had been climbing steadily since the industry’s filing of antidumping and countervailing duty petitions, reaching a peak of almost 1.5 million metric tons (MT) in November 1998. Following the early critical circumstances determinations that month, imports of hot-rolled steel declined sharply (*Chart 4-1*). December 1998 imports of hot-rolled steel fell 65 percent

compared to November 1998 and continued to fall in 1999. Without this early decision and the accompanying expedited investigation, relief from the surge would likely not have come until March 1999.

When the industry filed additional antidumping and countervailing duty cases in early 1999, Commerce continued to expedite investigations where possible. These investigations were also highly effective in helping to reduce import levels. In the three months following the Commerce Department's preliminary determinations in the cold-rolled steel and cut-to-length plate investigations, imports of these products fell 20 percent and 33 percent, respectively, compared to the previous three months.



**4-1. U.S. Imports of Hot-Rolled Steel**

### Determinations Confirm Dumping

The aggressive pricing by foreign steel exporters resulted in substantial dumping margins.

- In the hot-rolled steel investigations, the final dumping margins ranged from 41 percent to 43 percent for Brazil, 18 percent to 67 percent for Japan and 74 percent to 185 percent for Russia.<sup>2</sup>
- Final dumping margins in the cut-to-length plate and cold-rolled steel investigations ranged from *de minimis* to 72 percent and 7 percent to 164 percent, respectively.
- In the heavy structurals investigation, dumping margins ranged from 26 percent to 65 percent.

The high margins resulted in considerable antidumping duties being imposed on imports of most of these products to offset the effects of dumping. In several cases, countervailing duties were also required to offset the effects of government subsidies (*Chart 4-2*).<sup>3</sup>

### Criticism of Steel Cases

Importers and foreign steel producers were critical of the trade cases, arguing that they were protectionist efforts designed to shut imports out of the U.S. market. Japan, the leading surge country and the country subject to the most new steel dumping cases, has been especially critical and has recently formed a special task force within the Ministry of International Trade and Industry (MITI) to bring WTO challenges against trade remedy rulings made against Japan by the United States. Likewise, importers and trading companies, previously the beneficiary of low prices but now potentially liable for dumping duties, raised concerns about the investigations and their outcome.<sup>4</sup>

On the other hand, many in the U.S. industry felt that relief under the antidumping and countervailing duty laws was too slow and piecemeal. The domestic industry and unions have expressed concerns with the potential for importers to shift to other foreign suppliers to avoid dumping orders. This practice is clearly the prerogative of importers, but it can have the effect of undermining the relief provided and require industry to repeatedly file new petitions.

#### 4.2 Recent Antidumping and Countervailing Duty Investigations on Steel Products

Product	Countries	Range of Margins (percent)	AD or CVD Orders	Negative DOC or ITC Decisions
Stainless Steel Plate in Coils	6 AD, 4 CVD	2–45	9	0 *
Stainless Steel Round Wire	6 AD	3–36	0	6
Stainless Steel Sheet and Strip in Coils	8 AD, 3 CVD	0–59	11	0
Carbon Hot-rolled Steel Flat Products	3 AD, 1 CVD	6–185	4	0
Carbon-Quality Cut-to-length Plate	8 AD, 6 CVD	0–72	11	3
Carbon Quality Cold-rolled Flat Products	12 AD, 4 CVD	7–164	0	16
Carbon/Alloy Seamless Pipe (over 4.5")	2 AD	11–106	2	0
Carbon/Alloy Seamless Pipe (4.5" or less)	4 AD	20–108	4	0
Structural Steel Beams	4 AD, 1 CVD	26–65	1	2
Tin Mill Products	1 AD	32–95	-	-
Circular Stainless Steel Hollow Products	1 AD	62–157	-	-

AD = antidumping. CVD = countervailing duty.  
 \*The ITC split the case into two like products and went affirmative with respect to stainless hot-rolled plate in coils.  
 Source: U.S. Department of Commerce, International Trade Administration, Import Administration.

U.S. industry also expressed concern that import surges often increase after the filing of antidumping petitions. Steel traders rush to “beat the clock” and ship greater quantities of steel before remedies are in place. U.S. laws provide a “critical circumstances” mechanism for addressing surges in response to a petition, which allows the retroactive application of duties if certain patterns of trade are detected. Under the critical circumstances provisions, retroactive dumping duties may be assessed if the Commerce Department makes a final critical circumstances determination and the International Trade Commission (ITC) makes an affirmative determination that the imports “are likely to undermine seriously the remedial effect of the antidumping duty order to be issued.”<sup>5</sup> The Commerce Department made affirmative critical circumstances determinations in six steel cases within the past three years. In those cases, the ITC did not make affirmative determinations, and no retroactive duties were assessed.<sup>6</sup>

#### The Effectiveness of the Steel Cases

While members of the U.S. steel industry have been significant users of antidumping and countervailing duty trade remedies, they have also at times questioned the effectiveness of these remedies.

According to U.S. Commerce Department statistics, the U.S. steel industry and unions have filed 158 antidumping and countervailing duty petitions on carbon or alloy steel mill products in the past decade, with fewer than half of the cases resulting in the imposition of trade remedy orders. Of those 158 cases, the ITC has made negative injury determinations in ninety cases. The U.S. industry appealed a number of these negative determinations, asserting that the ITC did not properly consider statutory factors in making injury determinations. In contrast, importers and foreign companies argue that the ITC’s high negative determination rate is a gauge of the merits of the cases brought by the U.S. industry. As support, they point to the much higher success rate of the specialty steel industry before the ITC. During the same ten-year period, the ITC made affirmative injury determinations on thirty-six of forty-eight cases brought on stainless products.

In making injury determinations in antidumping and countervailing duty investigations, the ITC considers a number of factors. One issue that was extensively argued before the ITC in recent steel cases is the treatment of “captive production.” In the steel industry, many steel products are further processed into

downstream products. The U.S. industry believes that production which is sold to an affiliated company or a joint venture for further processing should be considered “captive production” and, pursuant to statutory provisions, excluded from the ITC’s injury and import analyses. The U.S. industry contends that these intra-company transfers do not really compete with imports of the primary product and that by including captive production, the ITC overstates the size of the U.S. market and understates the importance of imports. Importers and foreign companies, on the other hand, contend that these intra-company sales should be considered when determining the size of the U.S. market because they compete with these sales and, therefore, are rightfully included in the ITC’s injury analysis.

### **The Section 201 Option**

Other trade law remedies, such as Section 201, were available to the steel industry to address the import surge. The import relief provisions under a Section 201 proceeding can result in potentially broad remedies, including quotas. However, because relief under this procedure is provided regardless of whether the imports are unfairly traded, the standard of injury is higher than in a dumping proceeding. In a Section 201 proceeding, the ITC must determine that increased imports are a substantial cause of serious injury to a domestic industry. In the case of an affirmative injury or threat of injury determination, the President has the discretion to decide whether to grant relief and what remedy to impose.

At the onset of the crisis, most segments of the industry were concerned that the higher standard in the injury test under Section 201 would result in a lower success rate for petitioners than in antidumping or countervailing duty cases.<sup>7</sup> They expressed concern that, in the ten years prior to the crisis, there were just three affirmative 201 determinations by the ITC, only two of which resulted in a grant of relief by the President (corn brooms and wheat gluten). Therefore, most segments of the steel industry turned instead to the antidumping and countervailing duty laws for relief, while pushing for changes to Section 201.

However, since that time, three of four Section 201 cases filed with the ITC have resulted in affirmative determinations.<sup>8</sup> Two of the three affirmative cases pertained to steel products. The wire rod and line pipe subsectors each obtained relief for three years.

- Wire rod imports in excess of 1.43 million MT in the first year, increasing by 2 percent in each ensuing year, will be subject to a tariff surcharge.
- Line pipe imports will be subject to a tariff surcharge, except for the first 8,165 MT annually imported from any country.

### **New Efforts to Tackle Underlying Problems and Help an Injured Industry**

As the financial health of the steel industry continued to deteriorate, Congress and the Administration realized that the trade laws alone were insufficient to address the root causes of the crisis and to revive the U.S. steel industry.

### **The Administration’s Steel Action Plan**

The Steel Action Plan of January 1999 laid out the Administration’s primary strategy for addressing the steel crisis: tough and swift enforcement of the unfair trade laws coupled with bilateral efforts to address the surge in imports.

- A steel import monitoring program was designed to quickly identify import surges or sudden price drops that might indicate unfair trade. In order to provide the steel industry with reliable import data as

early as possible, the Commerce Department took the unprecedented step of releasing preliminary monthly steel import data, three to four weeks before the release of the official import statistics.

- USTR immediately established bilateral consultations with Japan and Korea to discuss steel issues. Negotiations with Korea resolved the long-standing trade problem regarding the sale of Hanbo Steel and served as a forum for issues such as the privatization of Korea's largest steel producer, POSCO, and Korean steel industry restructuring programs.
- The Commerce Department entered into bilateral negotiations with Russia as an offshoot to the suspension agreement negotiations then being conducted within the context of the hot-rolled steel investigation. Commerce concluded a comprehensive steel agreement with Russia that set annual quota limits on a wide range of Russian steel products and pig iron. Designed to complement the antidumping suspension agreement on hot-rolled steel, the comprehensive agreement was intended to prevent future trade frictions in these product areas and act as the basis for future suspension agreement negotiations should cases on these products arise.

### **The President's Steel Action Program**

To reinforce the measures already taken and prevent future crises, the President announced a twelve-point Steel Action Program in August 1999. Key elements of the program include:

- Codification of the new critical circumstances policy.
- Expanded import monitoring.
- Continued bilateral efforts with Japan, Korea, Brazil, Russia, and Ukraine, and dialogue with other steel exporting countries as needed.
- The Administration's commitment to meet with various segments of the steel industry, including producers, suppliers and workers, to discuss the steel crisis and develop recommendations to avoid future crises.
- The Commerce Department's commitment to produce this report, *i.e.*, to examine and report on subsidies and market-distorting trade barriers in the global steel industry.

### **Congress' Emergency Loan Guarantee Program**

Senator Robert Byrd of West Virginia introduced a temporary steel loan guarantee program to help provide financing to troubled steel companies unable to obtain loans at reasonable rates. The program was later expanded to address troubled companies in the oil, gas, and iron ore industries. The Emergency Loan Guarantee Bill passed both houses and was signed into law.

At the time this report was written, four companies, Geneva Steel, GS Technologies, Northwestern Steel, and Wheeling-Pittsburgh Steel had been approved for \$365 million in guaranteed loans.<sup>9</sup> Other applications are still being considered, including applications from Acme Steel, Gulf States Steel, and Qualitech Steel (three firms currently in Chapter 11 bankruptcy proceedings).<sup>10</sup>

Critics view the program as a subsidy to inefficient steel producers that will promote or prolong excess capacity. However, the program is temporary and was designed to directly address the harm caused by the import surge of 1998. In addition, participants must still obtain commercial guarantees for 15 percent of the loans, with the government guarantee covering 85 percent of the principal of the financing.<sup>11</sup>

### **Other Congressional Initiatives**

Several bills were introduced to modify existing trade laws, making it less burdensome for industries to bring antidumping, countervailing duty or Section 201 import relief cases and to obtain relief.<sup>12</sup> The U.S. steel industry maintains that under U.S. trade law Section 201 has a stricter injury standard than is called

for by the WTO. The industry argues that changing the U.S. injury standards to conform with the WTO standard would make Section 201 a more viable option for addressing import surges. However, steel consumers believe that the current law is strong enough (*see box*). Trade law legislation related to Section 201 has yet to be submitted for a vote.

Representative Peter Visclosky of Indiana introduced legislation to establish quotas on all steel mill products based on the average import level from mid-1994 to mid-1997. The Administration, along with farm organizations and a number of industry groups, opposed the bill, citing the detrimental impact a quota would have on the U.S. economy and noting that it would violate international commitments, making the United States vulnerable to economic retaliation by other countries. This bill passed the House but was defeated in the Senate.

## The Road to Recovery

Actions taken by the Administration and Congress produced significant results that helped put the industry on the road to recovery. By late 1999, the decline in unfairly traded imports had a beneficial impact on the domestic market.

However, the road to recovery has been slow. While import volumes dropped significantly during the first half of 1999, there was a substantial lag before any recovery of prices and production.

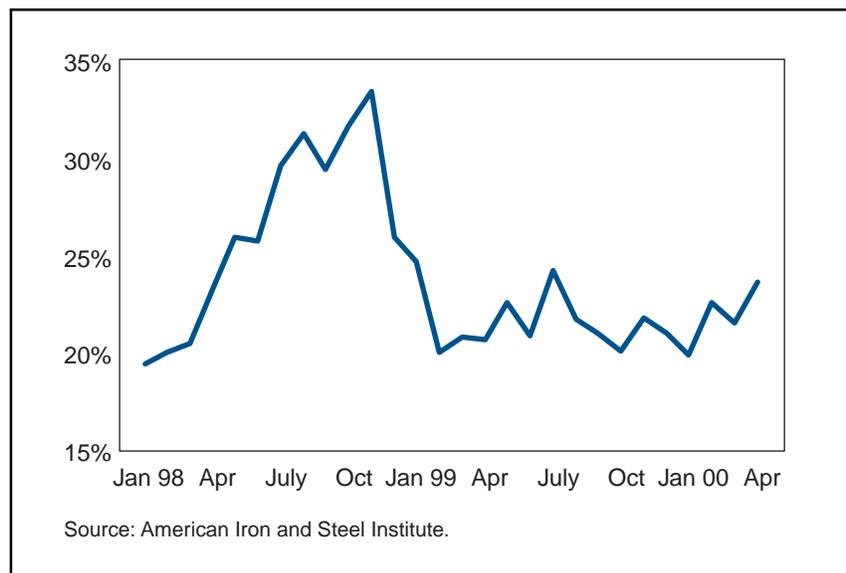
### Imports Ebb, With Some Notable Exceptions

Steel imports fell significantly from 1998 to 1999, with total steel imports falling 14 percent and finished steel product imports dropping 22 percent. As a result, import penetration for finished steel products declined from a peak of 33 percent in November 1998 to 20 percent in February 1999 and then stayed between 20 percent and 22 percent for most of 1999 and early 2000 (*Chart 4-3*).

### *Steel Consumer Views on Trade Law Changes*

In March 1999, J. B. Porter of Caterpillar, Inc. testified before the Senate Finance Committee that the U.S. steel industry's efforts to obtain special relief from steel imports—through legislated quotas or changing U.S. trade remedy statutes—could undermine U.S. competitiveness by subjecting U.S. exports to the risk of retaliation.

Representing both Caterpillar (one of America's largest importers of steel) and the Emergency Committee for American Trade (comprising leading American companies with global operations), Porter urged that any amendments to U.S. trade remedy statutes must maintain a balanced approach which takes into account the interests of not only the domestic steel industry, but of U.S. steel users, U.S. exporters, and U.S. importers as well. Thomas Belot of Vollrath Company (another representative of the steel-consuming industry) argued at the hearing that adequate protection already exists in Section 201.



**4-3. Import Penetration: Finished Steel (1998–2000YTD)**

## Reports of Tightened Supply

The impact of the trade cases on steel imports has caused some steel consumers to fear that markets may tighten, leading to shortages or long lead times. In particular, consumers have raised concerns about potential disruptions in the heavy structurals market. One president of a major steel distribution firm reported that inventories have declined, and that, unable to meet demand for wide flange beams (a heavy structural product), mills have responded by instituting a “controlled order booking system,” better known as “allocation.”<sup>13</sup>

However, there have also been indications that any tightness or disruptions in the heavy structurals market may have been temporary. Recently, prices for heavy structurals have fallen, an indication that shortages in this product are unlikely.<sup>14</sup> In addition, in a letter to the editor, H. Louis Gurthet, President of the American Institute of Steel Construction (AISC), stated, “Considering the overall market, it appears that supply is reasonably meeting current market demand.”<sup>15</sup> Gurthet’s letter responded to an article that indicated that trade cases may be causing supply problems in the market for beams. AISC represents fabricated structural producers, which purchase heavy structurals to further process for construction purposes.

## Imports Continue to Increase in Some Product Categories

While overall steel imports declined, there were some notable exceptions.<sup>16</sup>

- Imports of concrete reinforcing bar (rebar) increased 49 percent in 1999 compared to 1998, on top of a 75 percent increase from 1997 to 1998.
- Imports of wire rod products increased 17 percent in 1999 over 1998. However, imports of this product in future years will be affected by the President’s decision to grant Section 201 relief.
- Imports of semifinished steel, used by U.S. steel producers to manufacture finished steel products, increased 27 percent in 1999 over 1998, an increase of 1.6 million MT, the largest volume increase for any product category that year.

## Steel Prices Begin to Rebound in the Second Half of 1999

While prices fell sharply in the face of surging imports, their rebound has been much slower. Prices remained flat for much of the first half of 1999 and began to show signs of recovery only in the second half of the year. As the pressure from unfairly traded imports subsided, companies have been able to raise prices for a number of products. However, as of first quarter 2000, prices for most products remained below 1997 levels, and there are recent indications that some of the latest announced price increases are not taking hold.<sup>17</sup>

Today, as a result of the elimination of illegally imported steel, we are experiencing a very good hot-rolled and cold-rolled market. Our order book is full and lead times are extended. Prices are definitely improving.

John Duncan  
Vice President for Flat-Rolled Products  
Gulf States Steel at Sunbelt Steel 2000  
(December 1999)

- As of March 2000, U.S. spot prices for wide flange beams, wire rod, and galvanized sheet were still down by roughly 15–30 percent from December 1997 levels.<sup>18</sup>
- Spot prices for rebar, cut-to-length plate and stainless cold-rolled sheet were also down for the same period.<sup>19</sup>
- Although by May 2000, hot-rolled and cold-rolled prices were at December 1997 levels, they were still down 10 percent from levels earlier in 1997.<sup>20</sup>

## Effect of Excess Inventories

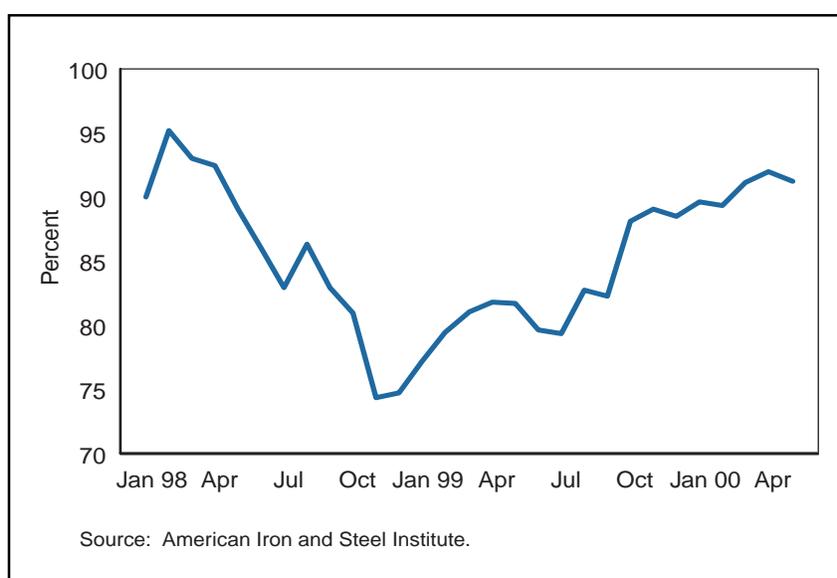
Much of the sluggishness in prices can be attributed to increases in inventory levels during the crisis—estimated to range upwards of 5 million MT. Excess inventories continued to depress prices for several months after imports began to decline. One noted industry observer recently commented that as much as 4.5 million MT of the inventory bulge in 1998 was worked off in just the first half of 1999.<sup>21</sup>

## Production Resumes, But Financial Recovery Is Slow

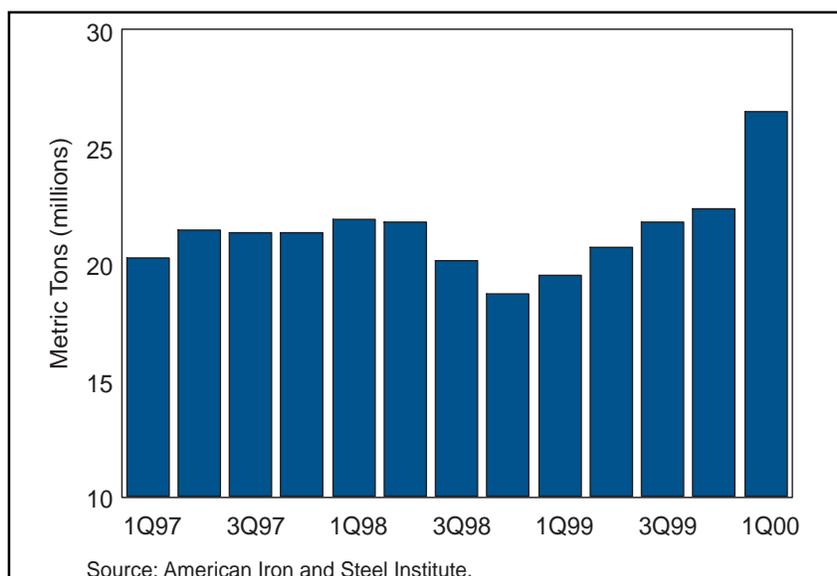
With imports declining and prices rising, domestic production and capacity utilization have been on the upswing. Capacity utilization rates, which fell from more than 90 percent in early 1998 to below 75 percent by year's end, returned to roughly 89 percent by the end of 1999. By the first quarter of 2000, capacity utilization rates were again above 90 percent (*Chart 4-4*).

Having fallen 11 percent in the second half of 1998, domestic shipments returned to pre-crisis levels by the third quarter of 1999. In the first quarter of 2000, domestic shipments rose 18 percent compared to the previous quarter and exceeded 26 million MT, their highest quarterly level in twenty-six years (*Chart 4-5*).

While production levels were recovering, the financial health of the industry remained lackluster throughout most of 1999. By the end of the year, major integrated mills still faced losses. The top six U.S. integrated mills had a cumulative operating loss of \$27 million during the fourth quarter of 1999.<sup>22</sup> The situation for mini-mills appeared to be better—net income for a group of ten U.S. mini-mills rose 18 percent in the fourth quarter of 1999, compared with the same quarter of 1998. However, Nucor accounted for much of the improvement; excluding Nucor, the remaining firms collectively had essentially no income in the fourth quarter of 1999.<sup>23</sup> By the first quarter of 2000, the industry's financial

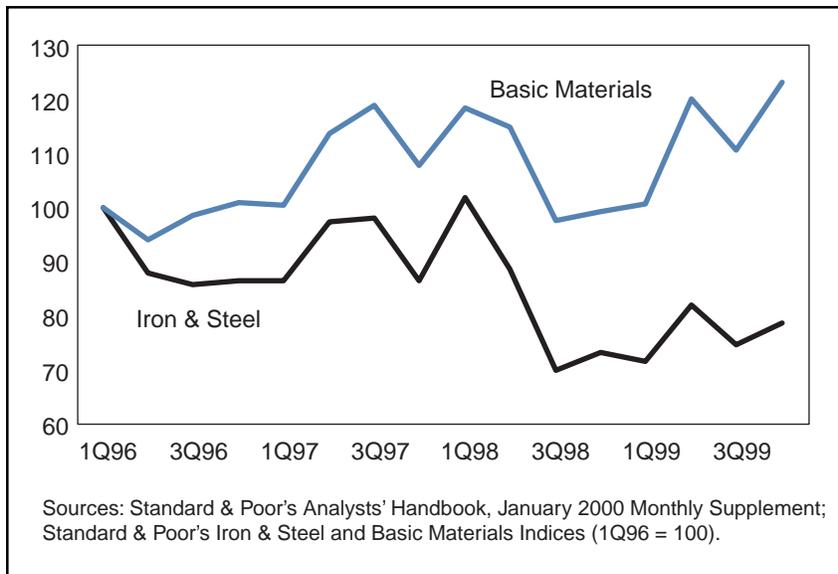


4-4. Monthly Capacity Utilization Rates



4-5. U.S. Shipments of Steel Mill Products (1Q97 to 1Q00)

health had improved significantly. The top six U.S. integrated mills had a cumulative operating profit of \$189 million, up roughly 425 percent from first quarter 1999 (when four of the six companies had operating losses).<sup>24</sup>



**4-6. Stock Prices: Iron and Steel vs. Basic Materials (1996-1999)**

The industry's financial difficulties have been evident in slumping stock prices. A composite index of U.S. steel company stock prices increased about 30 percent between early 1997 and spring 1998. By late summer 1998, the index had lost all of these gains and plummeted another 30 percent, where it remained for the rest of 1998 and most of 1999.<sup>25</sup> An examination of Standard & Poor's Iron and Steel and Basic Materials indices provides further illustration of the industry's difficulties in 1998 and 1999. Down 15 percent in 1998 compared to the previous year, iron and steel stock prices

rose 7 percent in 1999, compared to a decline in basic material stock prices of 8 percent in 1998 and an increase of 24 percent in 1999 (*Chart 4-6*).<sup>26</sup>

### **Employment Remains Flat Through 1999 but Starts to Recover in 2000**

Despite signs of recovery in the steel industry, overall employment levels remained flat through most of 1999. However, recently there have been some encouraging signs as workers laid off during the crisis return to work.<sup>27</sup>

- At Weirton Steel, 150 employees—the final group of roughly 1,000 employees laid off in 1998—were recently called back to work following Weirton's posting of profits in the first quarter 2000.
- Many employees have been called back at Geneva Steel, although approximately 130 workers remain laid off.
- At Acme Steel, workers laid off in 1998 and 1999 who have not retired are being rehired.

### **Input Producers Are Also Affected by the Steel Crisis**

Semifinished steel products are imported by U.S. mills and rollers to produce into finished products such as hot-rolled steel. Some saw the increase in semifinished steel imports as a positive sign of recovery, *i.e.*, in order to meet increasing demand, the domestic industry needed to supplement its production of finished steel by rolling imported semifinished steel products. Others were alarmed that imports of low-priced slabs were replacing blast furnace production and translated into lost jobs not only at the blast furnace, but at iron ore mines, pellet plants, and coke ovens that supplied these mills.<sup>28</sup>

Unlike the steel industry, which began to see signs of recovery in 1999, the situation in the input industries remained depressed or continued to deteriorate in 1999, due not only to low-priced imports of iron ore and

coke but also to the large increase in low-priced imports of semifinished steel. Prices remained depressed and layoffs continued into 1999 and 2000. Most recently, 1,400 workers in northern Minnesota were facing layoffs with the announcement by LTV that it was closing its Hoyt Lakes mine and taconite plant.<sup>29</sup>

These upstream industries were as concerned by the long-term impact of the increase in imports of low-priced semifinished steel as by the immediate pressure on iron ore and coke prices. The iron ore and coke industries were concerned that the continued presence of low-priced semifinished steel might encourage integrated steel mills to retire rather than reline blast furnaces that were temporarily shut down during the crisis or that need modernization.<sup>30</sup> Once retired, these furnaces are rarely reopened, resulting in a permanent loss of domestic demand for iron ore and coke.<sup>31</sup>

## The Iron Ore Industry

The domestic iron ore industry is concerned about imports of both semifinished steel and iron ore, particularly from Brazil.<sup>32</sup> Although Australia, Canada, China, India, Russia, and Ukraine are also significant producers of iron ore, the U.S. iron ore industry views Brazil as its major foreign competitor, due to its position as a major producer of both high grade ore and semifinished steel slabs.

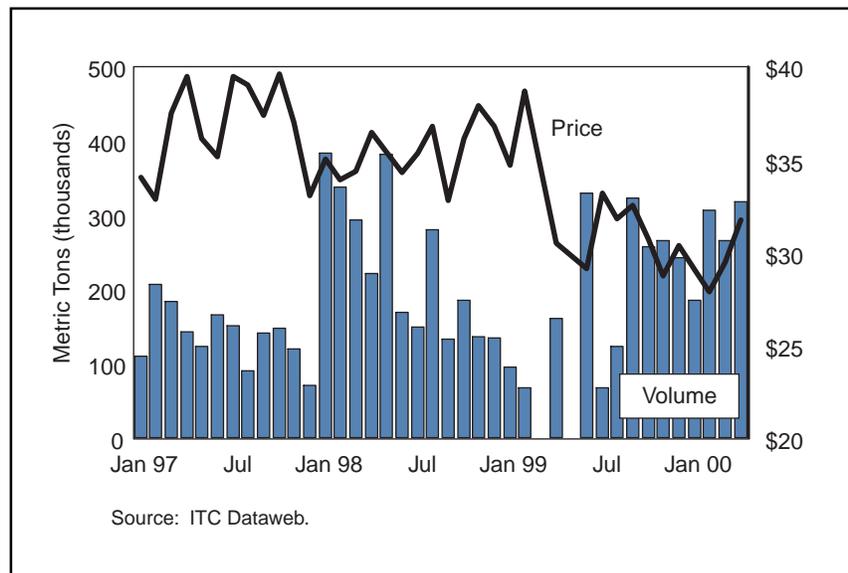
According to the U.S. industry, competition occurs across the spectrum—ranging from unprocessed iron ore to semifinished steel. While certain iron products may not be directly substitutable, aggressive pricing of one product may prompt shifts in production or investment that reduce demand for the other product. In the case of semifinished steel slabs, low-priced imports can have a greater impact on the iron ore industry than imports of iron ore itself. Unlike the one-to-one relationship between domestic and imported iron ore, one ton of imported slab typically displaces one and one-half tons of domestic iron ore.<sup>33</sup>

### The Role of Brazilian Iron Ore and Slab

The iron ore industry has raised concerns that imports of Brazilian iron ore and slab have slowed the industry's recovery from the 1998 steel crisis.

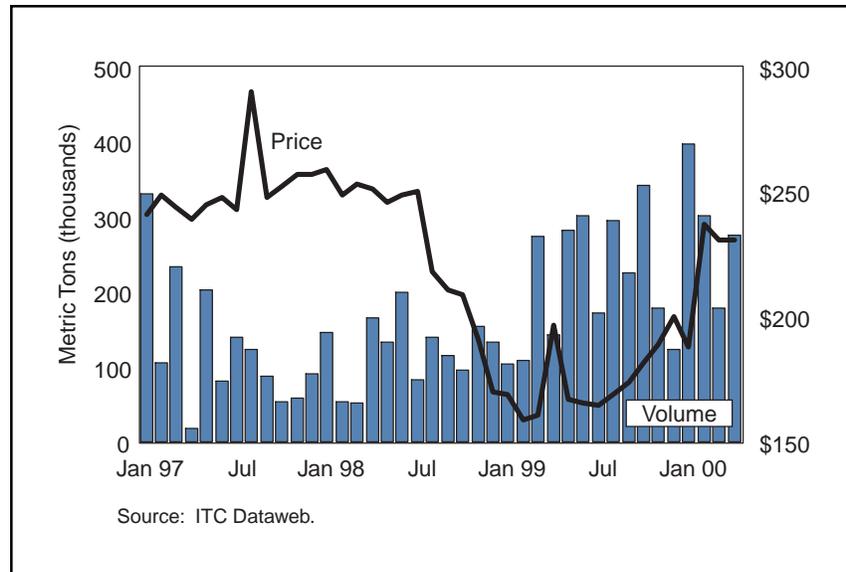
- With the decline in U.S. steel production in the second half of 1998, imports of Brazilian iron ore pellets fell dramatically. As U.S. steel production recovered in the spring of 1999, imports of Brazilian iron ore pellets resumed, but at lower prices, averaging \$32 per MT in 1999, compared to \$37 per MT in 1997 and \$35 per MT in 1998 (Chart 4-7).

During the first four months of 2000, average Brazilian iron ore pellet prices fell further, to \$30 per MT.<sup>34</sup> Data provided by the iron ore industry on individual Brazilian iron ore pellet shipments shows prices as low as \$26 per MT in January 2000.<sup>35</sup> The prices in these shipments are considerably below the industry's constructed "world price" for a similar shipment of iron ore pellets at \$29 per MT.<sup>36</sup>



4-7. U.S. Imports of Iron Ore Pellets: Brazil (1997-2000YTD)

- Of equal concern to the industry was the dramatic increase in low-priced slab imports from Brazil. Prices for Brazilian slab fell from \$250 per MT in July 1998 to \$170 per MT by December, a drop of 32 percent in less than six months (*Chart 4-8*). Sharply falling prices combined with recovery in the U.S. steel industry led to rapidly rising imports of Brazilian slab—1999 imports were up 73 percent from 1998, an increase of more than 1 million MT.<sup>37</sup> Imports of Brazilian slab continued to climb in 2000.



**4-8. U.S. Imports of Slab from Brazil (1997–2000YTD)**

During the first four months of 2000 alone, slab imports from Brazil exceeded 1 million MT, roughly 75 percent of the total amount imported throughout all of 1998. However, import prices have also risen significantly—slab import prices in April were up 45 percent from their low point in 1999.<sup>38</sup>

According to the U.S. iron ore industry, the ability of Brazilian producers to price aggressively in both products stems from the strong ties between major Brazilian producers of iron ore and slab and between these industries and the Brazilian government—a remnant of the days when both industries were government-owned or -controlled.<sup>39</sup> Companhia do Vale do Rio Doce (CVRD), Brazil’s major iron ore producer and the world’s largest, was partially privatized in 1997.<sup>40</sup> However, BNDES, the government-owned development bank, still owns 32 percent of CVRD. While there have been no recent U.S. antidumping or countervailing duty cases on iron ore or slab from Brazil,<sup>41</sup> the U.S. iron ore industry has raised concerns that the Brazilian iron ore and slab industries may be benefitting from government research and development assistance, regional development programs, infrastructure projects, and preferential financing.<sup>42</sup>

## The Coke Industry

The coke industry is divided into two parts: One produces furnace coke, and the other produces foundry coke. The two types of coke have very different properties; they must be produced separately and cannot be used in the same applications. Furnace coke is used in steelmaking, while foundry coke is used in industrial castings, such as engine blocks.

Furnace coke accounts for the vast majority of coke production and imports. As a result of reductions in the number of coke plants over the past two decades, the U.S. coke industry no longer completely supplies the needs of the domestic steel industry. However, because the tariff schedules did not distinguish between furnace and foundry coke until recently, accurate import figures on foundry versus furnace coke imports are unavailable.<sup>43</sup>

Like their counterparts in the iron ore industry, furnace coke producers are concerned about developments in the steel industry over the past two years that may lead to the retirement of blast furnaces. In addition, furnace coke producers, particularly those that produce for the merchant market, are becoming increasingly concerned about imports of furnace coke from China, a concern they share with producers of foundry coke.

## The Role of the Chinese Coke Industry

In recent years, China has become the world's largest coke producer, displacing Japan.<sup>44</sup> The Chinese coke industry has undergone a rapid expansion. In 1980, China produced 43 million MT of coke; by 1997, production had increased to 137 million MT.<sup>45</sup> In Shanxi, China's largest coke-producing province, the number of coke plants increased from five in 1980 to 1,500 by 1995.<sup>46</sup> Coke production correspondingly increased from 1.6 million MT to more than 50 million MT.<sup>47</sup> Chinese coke production is predicted to increase to approximately 40 percent of world capacity by the end of the year, up from 28 percent just six years ago.<sup>48</sup>

Increasingly, China has turned to export markets as an outlet for its coke production. China's coke exports increased tenfold between 1988 and 1997 (*Chart 4-9*).<sup>49</sup> Major markets include the United States, Europe, Japan, and India. U.S. imports of Chinese coke increased steadily from 1996 through 1998, but fell back by about the same amount in 1999. During that period, import prices for Chinese coke fell by roughly 30 percent.<sup>50</sup>

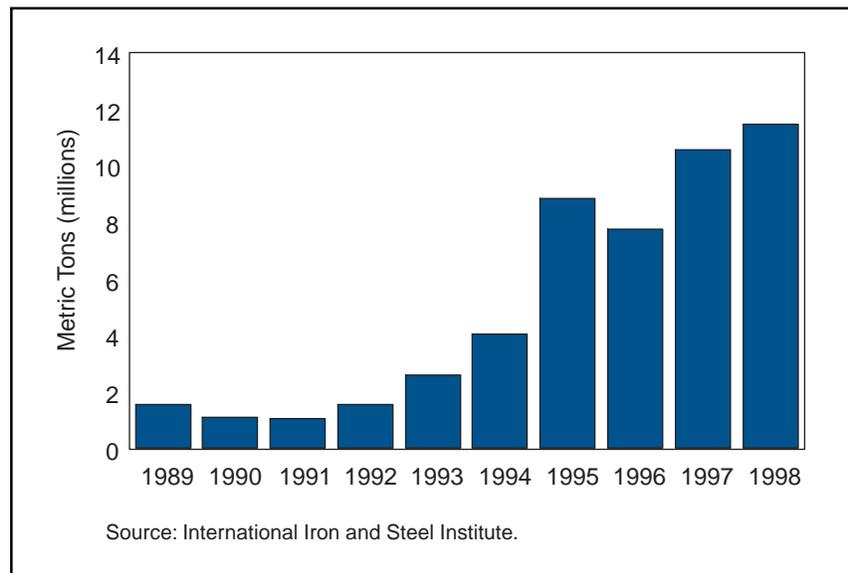
A substantial portion of Chinese coke is produced in beehive ovens, a process long since abandoned in the United States because of high pollution and inefficient use of energy.<sup>51</sup> While other major coke producing countries have been retiring these ovens in favor of cleaner, more efficient mechanical coke ovens, China has dramatically boosted beehive oven production.

Conversely, U.S. coke producers incur significant costs associated with

environmental compliance. The U.S. coke industry is concerned about the effect of China's environmental standards on that country's export competitiveness. According to Mr. Yan Suling, Deputy General Manager of the Fifth Department, China National Coal Industry Import and Export Commission:

To expand coke exports, China will tolerate the pollution involved in beehive coke oven production for a short period of time. ...[C]heap labor cost, adequate cokemaking capacity and relatively lenient environmental protection regulations will enable Chinese coke exports, with sufficient and stable supply and most competitive prices, to continue to win a large share of the world coke market.<sup>52</sup>

U.S. coke producers are concerned that continued inroads into both the furnace and foundry coke markets by low-priced Chinese coke producers will precipitate the closing of U.S. coke facilities or discourage new investment in U.S. coke ovens.



**4-9. Exports of Coke from China (1989–1999)**



## CHAPTER 5

# Reforms and Restructuring Abroad

### Introduction

There are some encouraging signs that the key overseas steel producers involved in the U.S. steel crisis are prepared to address market-distorting practices. Japan, Russia, Korea, and Brazil have each suffered from severe or prolonged economic downturns. In the face of these downturns and to stimulate economic renewal, these countries have begun to implement market-based reforms. In turn, such reforms could help curb market-distorting practices that have plagued global steel trade.

- The governments of Japan, Korea, and Brazil have announced measures to address the significant **structural problems** confronting their financial and industrial sectors.
- Brazil is attempting to address the problem of **anticompetitive business relationships** among members of their steel industry. There are some indications that there may be increased competition within the Japanese steel industry.
- Russia's new leadership has made a **commitment to reform**.

These efforts have had mixed success to date. It remains to be seen whether they will have a lasting impact on the global steel market. To the extent that reforms are achieved, the U.S. steel industry and the national economies of these countries will share in the benefits of a healthier international steel marketplace.

### Russia

Developments in Russia since August 1998 offer bright prospects for the future: the economy is growing; barter is down; and, taxes and wages are being paid. This period of relative economic well being creates an opportunity for reform. Politically, President Putin and Prime Minister Kasyanov have recognized the need for reform. If the Russian steel industry uses this opportunity wisely, it can become a world-class steel producer and can compete fairly in the future.

In a five-year development strategy issued in late 1999 under President Yeltsin, the government of Russia laid out a plan for modernizing the industry with a limited amount of government assistance. Issues such as the nonpayment of taxes and wages and barter are discussed, although tangentially (in the context of the need to control input pricing and restructure companies' debts).<sup>1</sup> President Putin's recently announced economic plan, however, does aim to address many of the structural problems that have distorted the business environment of the Russian steel industry.

## **Opportunity for Change in Buoyant Russian Economy**

Recent economic growth gives Russia breathing room to pursue reforms. The Russian economy is performing better than at any time since the breakup of the Soviet Union. In 1999, economic growth was up over 3 percent. Russia's industrial sector grew by 8 percent in 1999 and more than 10 percent in the first quarter of 2000.<sup>2</sup> Economywide growth is expected to be up to 5 percent in 2000.<sup>3</sup> Domestic steel consumption rose 10 percent in 1999 and was up approximately 15 percent during the first five months of 2000.<sup>4</sup>

Tax receipts are up too and, due to the government's insistence, so is the percentage of taxes collected in cash. Some barter payments for regional taxes remain, but at a reduced level.<sup>5</sup> Wage arrears are down throughout the economy.<sup>6</sup> Reportedly, the three largest steel companies are current on both their wage and tax bills, and the rest of the industry appears to be current on their wages. Steps have even been taken to address the issue of input pricing; although utility rates remain below world levels, gas rates were raised in February 2000, and electricity rates in May 2000.<sup>7</sup>

The extent of bartering in the overall economy has dropped from 54 percent to 36 percent.<sup>8</sup> In January 2000, cash payments to the natural monopolies (the gas, electric, and railroad companies) rose to 63 percent, from 46 percent the previous year. In the steel industry, the numbers are even better. Overall, the latest industry estimate is that barter has dropped to 15 percent of domestic steel sales; two companies have even reported barter sales have been eliminated.<sup>9</sup> The 1998 ruble depreciation caused export-oriented industries such as steel to suddenly become highly profitable. While costs (mostly ruble-denominated) dropped dramatically, revenue (mostly dollar-denominated) increased markedly. The sudden infusion of hard currency has made barter transactions less attractive, at least temporarily.<sup>10</sup>

With the domestic economy doing well and domestic demand for steel on the rise, Russian steel producers have a chance to improve their profits and, perhaps, decrease their dependence on exports.<sup>11</sup> In fact, two of the largest Russian steel companies are currently reporting a slight decline in exports due to the strong domestic economy.<sup>12</sup>

The government is forecasting that domestic demand for steel will increase nearly 50 percent by 2005. Demand for steel from the power generation, transport and heavy engineering sectors is expected to propel demand, increasing by 70 percent. The defense and automobile industries are expected to increase their need for steel by 65 percent and 45 percent, respectively. As a result, production of rolled steel products is expected to increase 30 percent by 2005. Exports of Russian steel are expected to increase slightly.<sup>13</sup>

Over the longer term, Russian steel industry and government representatives emphasize that when the Russian economy gets back on its feet, domestic demand for steel will increase significantly. For instance, industry and government officials point out that many of Russia's 120,000 kilometers of rail lines and 400,000 kilometers of pipeline will need to be replaced.<sup>14</sup> These two undertakings alone will require several million tons of steel.<sup>15</sup> If increased domestic demand leads to higher profits, the Russian steel industry has the opportunity to invest these profits in becoming a world class steel producer and a fair trader on the global steel market.

## **Hopes for the Future**

Not only is the economy doing well, there are encouraging signs that Russia's new leadership has a grasp of Russia's economic problems and the will to go forward with significant economic reforms. President Putin has described the problems of the Russian economy as follows:

The current dramatic economic and social situation in the country is the price which we have to pay for the economy we inherited from the Soviet Union. ... We had to install market elements into a system based on completely different standards, with a bulky and distorted structure. And this was bound to affect the progress of the reforms.<sup>16</sup>

Recognizing the need for change, President Putin has called for the end of “nonpayments, barter, and other pseudo-monetary forms of settlement.”<sup>17</sup> Similarly, Russia’s new Prime Minister, Mikhail Kasyanov, has called for reform and emphasized that recent economic growth is not sustainable and will only continue if structural reforms are enacted.<sup>18</sup> “We cannot ease the pace of reforms, or else we shall end up standing in one place and eventually get mired in stagnation,” the Prime Minister stated in May 2000.<sup>19</sup> To help integrate the Russian economy into the world economy, prompt economic reform and foster the movement towards a market economy, President Putin is also pursuing Russia’s entry into the World Trade Organization.<sup>20</sup>

### **Russia’s 1999 Steel Development Strategy**

As in its previous five-year program (1993), Russia’s steel development strategy of 1999 focuses largely on modernizing facilities and upgrading equipment. The stated goals of the strategy are (1) to ensure the supply of competitive products to domestic and export markets by improving the quality of Russian steel and increasing operating efficiencies and (2) to raise the level of technology employed in the manufacturing process. Meeting these goals, according to the strategy, will raise production for domestic consumption, increase foreign currency earnings, enhance Russia’s economic security, and ensure social stability.<sup>21</sup>

#### **Centrally Planned Restructuring—Picking Winners**

The strategy’s primary objective—restructuring production—calls for the modernization and renovation of “promising” companies by:

- Improving the quality of traditional products.
- Producing new products, including galvanized sheet for cars, rails for high-speed trains, and large-diameter pipe for gas pipelines (*see box*).<sup>22</sup> The production of new products appears premised upon a policy of import substitution.<sup>23</sup>

To facilitate modernization, companies have been ranked according to their importance to the Russian economy as a whole or to the economies of specific regions. The ranking may be used to determine the

#### ***Building a New Plate Mill***

Late last year, the government of Russia requested bids for a \$1 billion project to build a new extra-wide steel plate mill, known as Mill-5000, to make large diameter pipe for the Russian gas company Gazprom. Currently, Gazprom imports roughly 750,000 metric tons (MT) of pipe each year from Japan and Germany. Production from the new mill would replace these imports.

The government is leaning towards awarding the project to Nizhny Tagil, although financing remains an issue. Based on press reports and U.S. embassy reporting, the Russian government is considering taking a substantial ownership interest in the new project. Tax incentives may also be provided for the new project. Other bidding consortia continue to say they will look to put together the plate mill project with private sector financing.

In recent years, Nizhny Tagil has been close to bankruptcy. Industry speculation before the announcement was that Nizhny Tagil’s relatively weak financial position would actually be an advantage in the selection process.

priority of targeted state subsidies, either through the direct allocation of resources, or indirectly, through tax breaks and other privileges. Russia's economic security in metal production was a prominent consideration. The following measures were identified as necessary to ensure economic security:

- Maintaining an adequate level for each stage of production, from mining to final product manufacturing.
- Launching facilities to substitute domestic production for imports.
- Ensuring a certain volume of export sales with a view to replenishing the foreign currency reserves of the state.<sup>24</sup>

While the five-year development strategy is less than ideal in its lack of market orientation, it sets out important modernization goals, which if combined with the pursuit of other economic reforms would provide a real basis for optimism. Russia's steel industry needs real restructuring. Without new investment, a plant that was old and uncompetitive in 1991 is now even older and less competitive.<sup>25</sup> Companies that do not restructure and become competitive will form a natural constituency opposing the imposition of normal market restraints and supporting artificially low-priced inputs in order to maintain production and continue exporting. The longer that normal market restructuring is postponed, the more painful the process will be. If the Russian steel industry is fully restructured, however, Russia's comparative advantages of a skilled, low-cost workforce and ample supplies of energy and other inputs will make it a strong competitor that will be able to compete fairly in the global steel trade.

## Japan

The decade-long economic downturn in Japan has brought key structural problems out into the open and increased the pressure on the financial and industrial sectors—including the steel industry—to restructure with an eye toward increased competition and better management of market risk.

- Steel consumers are demanding a more competitive Japanese home market.
- Long-awaited banking reform may have some positive effects on the Japanese economy, including the steel sector.
- Government initiatives may encourage companies to reduce capacity.

But the long-term impact of such developments on the steel industry remains to be seen.

- Large Japanese steel firms have announced plans to increase capacity.
- Banking sector reforms may lose momentum and have a negligible role in steel sector restructuring.
- And government initiatives intended to urge companies to scrap excess capacity may in fact make it easier for steel producers to avoid hard choices.

## The Setting: Dependence on Exports to Sustain Production

In the wake of U.S. trade actions against the surge of dumped Japanese steel exports, a respected Japanese business journal summed up the state of the industry in mid-1999:

The steel industry has moved toward liberalization of production. Now that companies can no longer depend on exports, which had been considered their trump card for survival, they face the heavy burden of excess production capacity. Although it is unclear whether they plan to liberalize production for the domestic market, only two choices remain for the large blast furnace steelmakers: amalgamating or being weeded out through competition.<sup>26</sup>

While this analysis is largely correct, it did not anticipate the strength of the Asian recovery from late 1999 and into the current year, which has alleviated the pressure for some kind of reckoning for the Japanese steel industry. Increased regional demand allowed Japanese producers to continue to use exports as an “escape hatch” to maintain—or even increase—production and capacity levels in the face of continued weak home demand. For the fiscal year ending March 31, 2000, total Japanese exports, according to JISF statistics, had risen to nearly 30 million metric tons (MT), their highest level in thirteen years.

Japanese exports to the United States, while down from record levels in 1998, have remained at or above the average export levels in the years leading up to the export surge.<sup>27</sup> Meanwhile, domestic shipments had yet to recover from their collapse in 1998 as of Spring 2000, and imports have failed to make headway into the Japanese market. As a result, Japan’s steel trade surplus has remained at over 20 million MT annually.<sup>28</sup> These developments, along with a large rise in production over the past year and recently announced capacity expansions by Nippon Steel and other major producers, make it probable that the industry may become even more dependent on export markets in the future, despite some recent evidence of renewed economic growth in Japan.

### **Pressures on Apparent Coordination Among Major Producers**

Japan’s approach to international steel markets would be unsustainable if not for the fact that Japanese steel producers are able to command high prices in their home market with the help of apparent coordination among major producers. The high domestic prices charged by Japanese producers under this system reinforce the problem of low domestic demand, while providing the means to subsidize low prices in export markets. Therefore, elimination of any such coordination is one of the most important structural issues facing the Japanese steel industry.

The extreme rigidity of longstanding production shares under the cooperative system was underscored recently when a change of less than 1 percent was viewed by industry analysts as a watershed event warranting extensive commentary on the future of competition within the industry. The *Nihon Keizai Shimbun* announced that changes from 0.5 percent to 1 percent among major producers in late 1999 “represents the largest-ever change in production share.”<sup>29</sup> While marginal in absolute terms, it remains to be seen if this change signals transformation to a more competitive marketplace in Japan. Developments over the past year indicate the possible emergence of meaningful competition among major producers, including:

- Japan’s largest steel buyers, the major automotive customers, have pressed for more competitive domestic market pricing.
- A reported increase in competition from industry leader, Nippon Steel, vis-à-vis the other integrated firms.

### **Big Buyers**

Japanese customers’ demand for lower domestic pricing has put pressure on the steel producers, particularly with respect to automotive sales. Major automotive customers used to spread their steel purchases among each of the five major integrated producers.<sup>30</sup> Now customers are reducing the number of their steel suppliers to increase competition among steel companies for their business, seeking out price reductions in return for higher volume purchases.<sup>31</sup> For instance:

- In July 1999, Mazda announced plans to limit its purchases of electrogalvanized sheet to two suppliers, Nippon Steel and Sumitomo.
- Shortly thereafter, Nissan announced that it would demand a 17 percent decrease in prices over a period of three years and would reduce its steel plate suppliers from five to three as part of its business rehabilitation plan. In April 2000, Nissan selected three suppliers, Nippon Steel, Kawasaki Steel

Corporation, and NKK Corporation.<sup>32</sup> This move is expected to precipitate a drop in prices for steel plate, a key revenue source for the steel makers.<sup>33</sup>

It is noteworthy that both Mazda and Nissan have significant foreign ownership, by Ford and Renault, respectively. In the first quarter of 2000, Daimler-Chrysler completed a deal with Mitsubishi Motors similar to the Renault-Nissan arrangement. To the extent that foreign ownership introduces fierce international competition in the automotive sector into the Japanese market, Japanese automotive producers may become increasingly unwilling to subsidize Japanese steel producers by paying high prices.<sup>34</sup>

### **Heightened Competition, Ambiguous Impact**

The fact that Nippon Steel was selected as a priority supplier by both Mazda and Nissan touches on another widely noted development: the perceived readiness of Japan's leading producer to compete with the other major steel producers. Increased competition by Nippon could reduce domestic prices and result in a shakeout of the five major integrated producers.<sup>35</sup> However, the net effect on the Japanese steel industry is unclear, for two reasons:

- The production facilities of smaller producers may simply be absorbed by larger producers, rather than shuttered.
- Nippon appears to view increased competition in Japan as part of a larger strategy to expand production and capacity in order to regain its status as the world's biggest steel producer.

As one industry report put it in discussing Nippon's recently announced plan to increase capacity by 10 percent, "It can be said that the reason why Nippon Steel decided to expand its production capacity through restructuring of blast furnaces is because it will no longer maintain the 'cooperative production scheme among five blast furnace makers.'"<sup>36</sup>

Nippon's current plans appear to reflect a "bigger is better" attitude due in part to the success of Korean producer POSCO in becoming the world's largest and one of its most efficient steel producers, while Nippon's production has declined from its historic highs in the 1970s.<sup>37</sup> Nippon's strategy is to expand its way into more efficient production through increasing economies of scale. Nippon Steel Chairman Imai has been quoted as saying, "The minimum level of production is 26 million tons, and we will never decrease from it."<sup>38</sup>

### **Net Effects**

Steel analysts, the Japanese press, and others are watching carefully to see if the apparent coordination among the major integrated steel companies is eliminated. By themselves, these developments do not appear sufficient to conclude that the Japanese industry is now in a state of meaningful competition. The small changes in production share that have occurred to date can be attributed to changes in production for export, while domestic restraints remain in place.<sup>39</sup> Similarly, the drop in prices paid by the largest domestic buyers in early 1999 may simply reflect the fact that Japanese producers had to increase domestic shipments as a group after being forced to reduce exports to the United States. One report from December 1998 predicted the price drop in the domestic market in just those terms: "Meanwhile, supply pressure is likely to build: prolonged production cuts and the narrowing of the U.S. market forces Japanese makers to settle for adequate utilization rates at the expense of easing domestic prices."<sup>40</sup> To date, prices in Japan for the largest buyers remain high relative to other major markets despite continued weakness in domestic demand.<sup>41</sup>

### **Impact of Financial Sector Restructuring on Japanese Steel**

In 1999, Japan's top banks announced a series of "mega-merger" plans, to take effect in 2001 and 2002, that hold the potential of reshaping the Japanese financial sector into four main groups. In terms of assets,

these four heavyweights will be able to claim top rankings in international comparisons of size. However, it is important to recognize that it is still too early to judge what effects these merger plans may have on the broader economy, particularly given the rather poor history of financial sector tie-ups in Japan. Moreover, the Japanese financial system, though stabilized by significant government measures, still requires further steps to free itself from massive debt overhang. The “bigger is better” rationale alone will not justify the tie-ups; it will remain critical for the new institutions to focus on disposal of bad assets to improve their balance sheets and to bolster operational profitability in order to survive in international competition. There are two characteristics of the soon-to-be merged megabanks that might give some impetus to much needed corporate restructuring in Japan, even within the steel industry:

- Some of the resulting banks cut across the traditional ties among Japan’s industrial conglomerates (or *keiretsu*).
- These banks appear to be more focused than in the past on maximizing profits.

### **Reduced *Keiretsu* Cross-Shareholding**

Traditionally, most *keiretsu* have had a so-called “main bank,” or primary lender, at their core. Now some of these main banks have agreed to merge. Two of the major banking merger deals announced in 1999 were tie-ups among the main banks of the major steel companies.<sup>42</sup> The plans for the unprecedented cross-*keiretsu* bank merger for the Industrial Bank of Japan, Dai-ichi Kangyo Bank, and Fuji Bank could, according to one source, “likely increase pressure to reorganize in a range of industries.”<sup>43</sup> Some analysts also predict that the pending merger could affect restructuring and competition within the steel industry itself, because the newly merged bank will become the ‘main bank’ for four of the five major steel companies.

One characteristic of the *keiretsu* system is the practice of cross-shareholding by member firms. Banks also participate, though by law are restricted to a maximum of 5 percent stake in any one firm. By one private analyst estimate, Japanese financial institutions currently hold 23 percent of total corporate equity ownership, compared with just 4 percent in the United States.<sup>44</sup>

Large Japanese corporations and financial institutions have been unwinding cross-held shares, spurred by changes in accounting and financial statement reporting. One potential consequence for Japanese manufacturers, including in the steel industry, resulting from these bank mergers may be the weakening of the cross-shareholding system, since some mergers will cut across *keiretsu* ties.<sup>45</sup>

For example, as part of the merger two of Nippon Steel’s main banks are selling their shares in *keiretsu*-member companies.<sup>46</sup> As the direct linkages of banks to steel producers weaken, traditional business relationships are expected to evolve, and changes to the banking system may lead to industry restructuring. It will take time, in any case, for these changes to occur and for the results to become apparent.

### **New Focus on Bank Profitability**

The top Japanese banks posted extremely poor performances in the late 1990s.<sup>47</sup> Almost all of them recorded losses for three consecutive fiscal years as they grappled with rising funding costs on the one hand and a deteriorating lending environment and increasing levels of nonperforming loans on the other.

Though most reported profits in the FY 1999, core profitability remains weak. Recently, some of Japan’s banks—including those involved in merger plans—have shown signs of a new focus on profitability, such as adopting lending techniques that incorporate better assessment of customer risk in order to improve their asset portfolios and raise profit level. Reflecting this new approach to lending, Yoshiro Yamamoto, president of Fuji Bank, stated that “[n]ow our lending practices are based on rational criteria. We are trying to maximize profits.”<sup>48</sup>

### ***The New Role of the Development Bank of Japan***

In the late 1990s, Japan's banking crisis and the scarcity of commercially available capital led some of the steel companies to the Development Bank of Japan (DBJ) for their financing needs. In response to the credit crunch, the Japanese government established a Tight Credit Countermeasure, allowing companies to obtain credit which they would have been able to get from private banks before the credit crunch. In addition, as part of its economic stimulus plan, the government expanded the range of uses for DBJ loans to include redemption of corporate bonds and long-term operating capital.

In 1999, the DBJ became the largest creditor for both NKK (with loans of 75 billion yen) and Sumitomo (37.5 billion yen—which exceeded lending by its main bank). In July 1999, *The Economist* suggested that the DBJ had replaced the main banks as the deep pocket for the big steel companies. "Japan has committed itself to creating a competitive banking industry. That is why, in a way, the government's huge emergency programme of loan guarantees and other direct lending to troubled industries is a step forward for Japan. Because the banks are no longer willing or able to provide soft loans for the welfare industries, the money has to be found by the government, and the cost is no longer hidden." While some see this as a positive step, this movement by the government raises serious concerns about whether the financing will be market based.

The three-year decline in gross bank lending may be partly attributable to enhanced sensitivity to risks in the current economic environment. Already, Japan's banks have begun adjusting their lending to major firms, including to the steel industry. As banks have begun to limit their lending, a few of the large steel companies have turned to the DBJ for financing (*see box*).<sup>49</sup> The banks involved in mergers may hasten that trend.

As of March 1999, three of the banks involved in one merger held almost 330 billion yen (approximately \$3 billion) in debt from four of the major steel makers.<sup>50</sup> When the three banks start to jointly set loan targets, companies unable to meet the higher-standard loan assessment criteria may fail. One industry observer predicts that a major steel industry reorganization is likely to be set in motion before the new bank's operations are consolidated in the spring of 2002.<sup>51</sup>

The impact on the steel industry will depend on the timing and degree to which lending banks introduce new lending policies and interest rates based on stronger risk assessments of steel customers, *i.e.*, how aggressively the new bank will seek to spread its loan risk and achieve higher profit levels.<sup>52</sup> Since information concerning specific interest rates for loans is not available, the specific impact of such changes will be hard to measure.

### **Mixed Results to Date**

Most observers of Japan agree that real financial and banking system reforms have taken place and that the effects from the reforms will continue. However, in early 2000, some sources reported that reform efforts appear to have lost momentum.<sup>53</sup> The major causes for this slowdown are:

- A lack of expertise, properly trained personnel, and computer models to conduct risk assessment.
- A lessened sense of urgency as stability was restored to the banking sector.

Banking reform in Japan is still not complete, and the ultimate impact of financial sector restructuring on the economy, while important, is difficult to gauge. It remains to be seen how these changes will effect a transformation in the steel industry.

## Government Initiatives to Encourage Restructuring

In response to the prolonged economic downturn, the Japanese government enacted laws to promote business restructuring in the late 1990s. These laws have allowed Japanese manufacturers, including steel producers, to retool, restructure, expand operations or make additional capital investment at a greatly reduced cost. Their role in bringing about much needed restructuring in the steel sector has been mixed.

### Industrial Revitalization Law

The most recent measure is the October 1999 Industrial Revitalization Law (IRL), which superseded the 1995 Business Reform Law.<sup>54</sup> The IRL encourages corporate mergers and spin-offs, as well as pursuit of more successful enterprises and the shedding of excess capacity.<sup>55</sup> Several measures are available to a firm whose restructuring plan has been approved:

- Exemptions from certain commercial law requirements.
- A raised upper limit to the amount of preferred stock in the case of a debt-equity swap, which should facilitate mergers and spinoffs.
- Support for management and employee buyout plans.
- Financial measures such as low-interest loans and guarantees.
- Tax incentives, such as allowing longer periods to carry forward losses (from five to seven years), reduced registration and license taxes for new firms, and accelerated depreciation allowances (18–30 percent).

Although the goal of the IRL is to urge companies to scrap excess capacity through preferential tax treatment, this has not happened to a significant degree. Many observers in the media, Diet and economic groups fear that the IRL is little more than a “welfare plan” for large companies.<sup>56</sup> Only one company out of the twenty that have received approval for measures (Japan Sheet Paper) has decided to scrap facilities and equipment.<sup>57</sup> As of mid-March 2000, only two steel companies had applied to qualify for IRL measures: Sumitomo and a small coated steel producer. One explanation is that more encouraging signs of economic growth have prompted companies to shelve plans for restructuring or the scrapping of facilities and equipment.<sup>58</sup>

There are also questions as to whether the IRL is more of a subsidy to certain companies rather than an inducement to restructure. Sumitomo Metal Industries Ltd., the only steel maker among the big five facing a recurring loss in FY 1999, was the first steel company to apply for IRL measures. Sumitomo’s application was expected to smooth the way for plans to spin off two factories and obtain loans from governmental institutions.<sup>59</sup> In November 1999, Japan’s Ministry of International Trade and Industry announced that Sumitomo’s restructuring plan had been approved and that Sumitomo would qualify for preferential tax treatment providing tax breaks of approximately 110 million yen and other support under the IRL. Sumitomo received approval for IRL assistance based on expectations that, with this treatment, Sumitomo’s profit-to-stockholder equity ratio will improve by 5 percent by the end of March 2001.<sup>60</sup>

## Korea

As a result of the Asian financial crisis and in fulfillment of its obligations under an International Monetary Fund (IMF) Stand-By Arrangement, the government of Korea has begun to implement a comprehensive program to address structural weaknesses in its financial and corporate sectors. The breadth and depth of these restructuring and reform efforts reach into virtually all facets of Korea’s economy, including the Korean steel industry. However, it is still too early to gauge their effectiveness and permanence. A recent report from the Organization for Economic Cooperation and Development warns that the Korean government is moving too slowly in its overall reform efforts, and that Korea could be on the brink of another crisis should restructuring fail and government intervention in the economy continue.<sup>61</sup> The initial

restructuring stage in the aftermath of the crisis is over, and the Korean government is now entering the longer-term process of corporate and financial institution reform.

- The Korean government has established general guidelines for restructuring the steel industry over the next several years. However, while some individual firms have committed to reducing capacity, restructuring efforts by the industry in general have been slow, in spite of continued low capacity utilization rates in 1999.
- Another problem is the government's continued role in POSCO, Korea's largest steel producer.
- The government has made important progress in financial sector restructuring and reform. However, its direct ownership of several nationalized commercial banks could allow continued intervention in the financial sector and could impede corporate restructuring, including in the steel industry.
- The government has also enacted new bankruptcy laws and implemented out-of-court market-oriented exit procedures that should address the problem of steel producers staying in the market well beyond their financial viability.

### **Steel Industry Restructuring Leads to New Giants and Additional Capacity**

During the period leading up to the Asian financial crisis, underlying structural weaknesses in the financial and corporate sectors contributed to market distortions in Korea's steel industry. Heavily indebted firms such as Hanbo and Kia continued to borrow for investments in production facilities, contributing to excess capacity and, ultimately, to insolvency.<sup>62</sup> Over the last few years, Korean steel companies have reduced some of their debt burden, mainly through debt-to-equity swaps. However, it is difficult to ascertain whether these swaps were market-based and what effect they had on the health of steel companies.

The Korean government's overall economic restructuring plans include general guidelines for steel industry restructuring to take place over the next several years:

- Finalizing and implementing the liquidation and workout plans in progress.
- Increasing capacity utilization by rationalizing production capacity.
- Supporting financially weak, but viable, steel producers by allowing creditor banks to offer conversions of debt into equity, reductions in interest rates, and new loans.
- Promoting mergers, acquisitions, liquidations and plant shutdowns.
- Persuading the steel industry to adopt strategies focused on core competencies along company or product lines.<sup>63</sup>

Undoubtedly, corporate restructuring cannot be accomplished overnight. The government has yet to fully implement these guidelines, which have been in place for some time now, and steel sector restructuring appears to be progressing slowly. The slow pace of these efforts raises concerns about further market distortions in the steel sector, particularly with respect to the financial support provided to weak steel companies.

### **Mergers and Acquisitions**

Under the above guidelines, several mergers and acquisitions are pending or have already taken place. Merging and further privatizing steel companies should help to eliminate or rationalize uneconomic capacity while improving the efficiency of existing capacity as consolidated companies focus on core operations. In addition to the purchase of Hanbo Steel (*see box, next page*),<sup>64</sup> there have been major changes, which include the following:

- In March 2000, Incheon Steel absorbed Kangwon Industries, creating the world's second largest mini-mill producer after U.S. firm Nucor. This merger could lead to accelerated capacity reductions, particularly for carbon steel angles, shapes, and sections.

### ***U.S. Firm Takes Over Hanbo Steel***

Protracted negotiations for the purchase of Hanbo Steel concluded in March 2000 when the Nabors Consortium (a U.S.-based investment firm) signed a purchase agreement to pay approximately \$500 million in cash for the insolvent mill. Once the final sale is concluded, Nabors is expected to liquidate Hanbo and establish a new company to take over Hanbo's assets and employees. The new company would be free from Hanbo's debts, while Hanbo's creditors (many government-controlled) and public funds will absorb the reportedly significant balance of the debt not recovered by Hanbo's sale.

Nabors plans to diversify its new steel production from Hanbo's current production and to collaborate with U.S. Steel and Hylsa of Mexico in rehabilitating the ailing steel producer. Current plans for the new company include:

- Restarting the hot-rolled carbon steel coil mill (capacity: 1.8 million MT) as soon as the final sale is concluded.
  - Completing a cold-rolled carbon steel mill (capacity: 2 million MT of crude steel).
  - Completing the Corex mill (capacity: 2.5 million MT of hot-rolled carbon steel coil) within the next few years.
- 
- In May 2000, Incheon Iron & Steel (Incheon Steel), now a subsidiary of the Hyundai Group, announced that it would acquire Sammi Steel. If the acquisition is approved by the Korea Fair Trade Commission (KFTC), the new company will surpass POSCO as Korea's largest stainless steel producer, holding 43 percent of the market, while POSCO will hold only 31 percent of the market.<sup>65</sup>
  - Industry experts expect the Hyundai Group to further merge Hyundai Pipe into the new Incheon Steel.<sup>66</sup> The Hyundai Group plans to spin off the merged steel firm later this year.
  - Acquisitions across borders have also taken place. A Japanese investment company purchased a 41 percent equity interest in Hyundai Pipe, making it the largest shareholder.<sup>67</sup> These industry developments could lead to the emergence of a steel giant out of the former Incheon Steel, Sammi Steel, Kangwon Industries, and Hyundai Pipe.

Restructuring of the Korean steel industry holds great promise for eliminating or rationalizing uneconomic capacity. Some individual firms have committed to reducing capacity. However, restructuring efforts by the industry in general have been slow in spite of continued low capacity utilization rates in 1999. The government has not announced specific actions it will take to implement the restructuring guidelines and address this problem. Again, the future of the Korean steel industry depends largely on the will of industry and the government to sustain momentum for change.

### **POSCO's Monopolistic Position in the Domestic Market**

Before competition can truly take hold in the Korean steel sector, the Korean government must follow through with its privatization of POSCO. As Korea's—and the world's—largest steel company, POSCO has a monopolistic position in the Korean market for certain major steel products and maintains its power over the distribution sector. As part of the Korean government's privatization program, and at the urging of the U.S. government to fully privatize POSCO, a portion of POSCO's shares held by the government-owned Korean Development Bank (KDB) were sold in July 1999. During that offering, KDB's ownership position was reduced from 21 percent to 13 percent. At that time, the Korean government stated emphatically that the rest of the shares held by KDB would be sold by the end of 1999.

Even though KDB offered 12 percent of POSCO shares in December 1999, the sale was called off due to differences in bid prices for the shares and the price that the government wanted to obtain for the shares.<sup>68</sup> However, immediately after the failed December bidding, KDB sold 3 percent of those shares to POSCO,

while still retaining over 9 percent of POSCO's shares. The terms of that sale were not disclosed. In early June 2000, the government of Korea again announced that it would complete the privatization of POSCO, this time by selling KDB's 7 percent shares through American Depository Receipts (ADRs) in the U.S. market and selling the remaining 3 percent of KDB's shares directly to POSCO. The announcement failed to address the remaining 6 percent shares held by the government-owned Industrial Bank of Korea (KIB). However, later in June KDB delayed that sale yet again due to a weak price in the U.S. market for existing POSCO ADRs.<sup>69</sup> Even though the open market offering was cancelled, during the previous week, the government had sold the promised 3 percent shares directly to POSCO.<sup>70</sup> Following previous patterns, the terms for that sale were not disclosed.

In bilateral discussions with the Korean government, the U.S. government has repeatedly pressed for the sale of the remaining 15 percent government-held shares in POSCO. The repeated delays of the planned privatization are discouraging. Until POSCO is fully privatized, there will continue to be concerns that it benefits from special governmental treatment and is used by policymakers to further the government's steel agenda. Moreover, unless the anticompetitive concerns of the KFTC are addressed, POSCO's dominant position, and the potential trade-related effects, could continue to undermine market forces in the Korean steel industry.

## **Restructuring the Financial Sector— Redefining the Korean Government's Role**

Corporate restructuring, following the government's guidelines, has largely been driven by financial institutions that are required to improve their own asset quality, capital adequacy, and profitability. For needed reductions in debt levels and excess capacity to occur, operational restructuring must go hand in hand with financial restructuring.

The Asian financial crisis exposed weaknesses in Korean bank lending to the country's industrial conglomerates, or *chaebol*. The legacy of government-directed lending, of which the steel industry was a major beneficiary in the past, left the country's financial institutions unprepared to pursue sound lending practices. Until Korean financial institutions establish sound banking and lending practices, there is a danger that corporate restructuring, including the restructuring of the steel sector, will be delayed. Financial sector initiatives now under way, including the resolution of nonperforming loans (*see box*),<sup>71</sup> will help to

### ***The Problem of Nonperforming Loans***

The Korea Asset Management Corporation (KAMCO) has been an instrumental player in restructuring the financial system. After Korea's financial crisis, KAMCO was responsible for effectively liquidating non-performing loans (NPLs). This is a critical job for at least two reasons:

- The total cost of restructuring is reduced by the income generated from NPLs sales.
- Effective disposition of NPLs directly affects the success of both financial and corporate restructuring efforts and the credibility of the financial reform program.

By the end of 1998, NPLs totaled approximately 104 trillion won (23 percent of GDP), growing to 113 trillion won by September 1999 (not including potential NPLs from the Daewoo workouts). By November 1999, KAMCO had acquired NPLs with a face value of more than 55 trillion won (approximately \$47 billion). It is currently disposing of these NPLs through sale of assets, international auctions and issuance of domestic asset-backed securities.

KAMCO also plans to enter into equity partnerships with foreign financial institutions and investors to facilitate further purchases of NPLs resulting from ongoing corporate restructuring deals.

ensure that the commercial banks follow market principles in their lending practices and that the government no longer intervenes in the lending decisions of private financial institutions.

## **Bank Restructuring**

The greatest progress has been achieved in the recapitalization and restructuring of private commercial banks.<sup>72</sup> The Financial Supervisory Commission (FSC), an independent agency, now has regulatory and supervisory jurisdiction over all bank and non-bank financial institutions, including the state development banks.

Under FSC supervision, significant bank reform measures have been implemented in the past two years. Among these measures are the following:

- Redefining exposure and legal lending limits.
- Adopting accounting principles and practices consistent with international accounting standards.
- Reducing and restricting “connected lending” and cross-guarantees of one corporate affiliate to another.<sup>73</sup>
- Strengthening the accountability and governance systems of banks by requiring, for example, the appointment of outside directors and the publication of audited financial statements.
- Increasing emphasis of bank management on profitability and prudential soundness.<sup>74</sup>

### **Potential for Government Interference In Steel Restructuring**

The Korean government has been actively involved in bank restructuring, both through nationalizing nonviable banks and through recapitalizing viable institutions.<sup>75</sup> As a result, the Korean government now holds majority shares in at least six commercial banks and holds minority shares in seven others, in addition to its ownership of KDB and KIB. This heavy government involvement in the financial sector has the potential to counter the overall restructuring and reform effort, including corporate restructuring of the steel sector. For example, the bankrupt Kia Steel was brought under the ownership of the Korean government by KDB’s conversion of debt into equity.<sup>76</sup>

The concern is that the Korean government could change its policy and could interfere with corporate restructuring and operational consolidation. Therefore, while the government’s financial sector reform and restructuring efforts have been generally successful, it is still too early to assess whether the market distortions caused by past government interference in the financial sector have been completely removed.

## **Insolvency Procedures: Need for a Well-Functioning Exit Market**

In an effort to bring its businesses in line with international best practices, the Korea government has launched a variety of reform and restructuring initiatives in the corporate sector.<sup>77</sup> One of the main objectives is to establish a market-oriented exit system by improving basic insolvency procedures. Such a system would address the problem of some steel producers staying in the market well beyond the point of financial viability. Of course, even with the appropriate laws and processes in place, such a system will not function properly if government intervention is excessive.

To address procedural inadequacies in Korea’s insolvency laws, several amendments were enacted in 1998 and 1999 intended to streamline the corporate restructuring process, to curb debtor abuses, and to facilitate a smoother exit system for nonviable firms.<sup>78</sup> These amendments allow Korean courts to force insolvent companies into bankruptcy and even liquidation if they are deemed to have no hope of recovery.<sup>79</sup>

The effects of these laws on corporate restructuring have been mixed, particularly for the steel sector, given the government's willingness to intervene to keep steel companies afloat.

### **Court Actions**

In June 1998, creditor institutions under the direction of the FSC announced that fifty-five corporations were nonviable (and *de facto* in default).<sup>80</sup> Of these fifty-five firms, twenty-five have been liquidated, fifteen sold, eleven merged, and four put into court receivership.<sup>81</sup> The four companies put under court receivership were all steel companies, *i.e.*, Hanbo, Sammi, Hwanyung, and Shinho. To facilitate the exit of these nonviable corporations, their creditor banks were prevented from extending new credit and financial assistance within business groups was prohibited.<sup>82</sup>

### **Out-of-Court Workout Scheme**

One week after this announcement, 236 financial institutions signed and entered into the Corporate Restructuring Accord (CRA), an out-of-court workout scheme.<sup>83</sup> Under this program, viable companies experiencing temporary management and financial problems enter into workout plans with their creditor institutions, which must abide by specific workout procedures.<sup>84</sup> Workouts under the CRA can involve a wide range of options, including deferred payments of principal or interest, interest rate reductions, debt forgiveness, provision of new credit, cancellation of existing guarantees or other obligations, debt-to-equity swaps, and sales of non-core businesses.<sup>85</sup> Any losses resulting from debt restructuring are shared fairly by the creditor institutions.<sup>86</sup>

By March 1999, fifteen *chaebol* entered into the CRA workout process.<sup>87</sup> Of the 248 companies in these fifteen *chaebol* groups, twelve were deemed financially healthy and 198 were disposed of by merger, liquidation, or sale.<sup>88</sup> The thirty-eight remaining firms entered into the CRA program along with another twenty-eight companies from smaller *chaebol* and twelve independent enterprises.<sup>89</sup> By September 1999, seventy-nine companies had finalized their workout plans, restructuring a total of 35 trillion won (\$29 billion)<sup>90</sup> of debt.<sup>91</sup>

Under the Korean government's guidelines for restructuring the steel industry, support for selected steel producers that are financially weak but potentially viable is encouraged. The main types of "support" to be offered by a company's major creditor banks are: conversion of debt into equity, reductions in interest rates, and new loans. It is difficult to tell at this time which Korean steel companies have entered into such "support" arrangements with their creditor banks or how successful CRA agreements have been.

## **Brazil**

Brazil, like Japan and Korea, has taken positive steps toward structural reform. The main obstacles standing in the way of effective steel industry restructuring include the anticompetitive behavior of Brazilian steel companies and the lack of any meaningful import competition. A web of affiliations between members of the steel sector has restrained competition within the Brazilian steel market. With the Brazilian market still largely insulated from imports, Brazilian producers have been able to launch aggressive exporting strategies. Steps taken by the Brazilian government and industry to address these market distortions include the following:

- Enforcement of antitrust laws to combat anticompetitive behavior.
- Promotion of steel sector restructuring to eliminate cross-ownership.
- Continuation of macroeconomic reform including lowering of interest rates to create a sustainable increase in domestic steel consumption.

Again, while these efforts hold promise for change, a tremendous amount of progress is needed on each front to effectively restructure the steel industry.

## Investigations of Cartel-like Behavior

Collusion in the Brazilian domestic steel market remains a serious problem. During a 1999 investigation, Brazilian authorities uncovered collusion to fix high prices. Then, in May 2000, CADE, Brazil's antitrust agency, announced that it would begin investigating whether the steel makers had formed a cartel to uniformly increase prices by 12–14 percent earlier that month.<sup>92</sup>

This most recent probe indicates that the job of curbing the anticompetitive behavior of the steel producers has only just begun and underscores the need for the Brazilian steel industry to untangle its web of cross-ownership.

## Untangling the Web of Steel Sector Cross-Ownership

Brazilian antitrust authorities have long expressed concern over potential conflicts of interest resulting from cross-ownership in the steel industry and interlocking directorships among steel producers.<sup>93</sup> Given a growing consensus among government and industry officials that the problems created by cross-ownership need to be addressed, it appears that the Brazilian steel industry is entering a period of merger and consolidation.<sup>94</sup> A 1998 analysis of the Brazilian steel industry in the *American Metal Market* predicted that “[w]hat are now confusing and, in some cases, conflicting intra-company ownership patterns, will be straightened out.”<sup>95</sup> Although consolidated ownership may give rise to unforeseen problems, it is hoped that the elimination of cross-ownership will create a more competitive market.

Toward a solution, the Brazilian national development bank, BNDES, has stated that it is “open” to using its financing to consolidate ownership in the steel sector. Maria Luisa Amarante de Andrade, manager of the BNDES Mining and Metallurgical Studies Department, declared that “[o]nly by consolidating steel-sector ownership in this manner will the sector gain the economy-of-scale-linked efficiencies needed to compete with other far-more-consolidated steel makers, especially in Europe and Asia.”<sup>96</sup>

Industry reports indicate that several steel producers are discussing the possibility of merger.<sup>97</sup> Brazilian steel producers Usiminas and Cosipa have already taken the plunge (*see box*).<sup>98</sup> These mergers may ultimately create three large independent steel companies and foster strong competition within the domestic market. More robust competition could force Brazilian steel makers to eliminate excess steel capacity and focus steel production on domestic and export market demand. However, the ultimate outcome of these discussions of mergers and consolidation remains unknown.

It is also unknown what these possible mergers could mean for Brazil's position in the global steel market. Some analysts believe that Brazil is rapidly becoming a world-class steel producer with the potential to rival leading steel-producing nations.<sup>99</sup>

Brazil's aggregate steel production capacity is already expected to grow by over 19 percent by 2005. Therefore, the long-term impact of restructuring, in particular the effect it will have on the U.S. market, remains to be seen.

### *Anatomy of a Merger: Cosipa-Usiminas*

In 1993, when Cosipa was partially privatized, a consortium of investors led by Usiminas took control of the company. Usiminas has since acquired additional voting capital stock and currently controls 49.8 percent of the common shares of the company. When Cosipa neared bankruptcy in 1998, Usiminas engineered a major restructuring via a debt-equity swap. Usiminas took on part of Cosipa's debt in the form of convertible debenture, which can be converted to equity. Upon conversion of these debentures, Usiminas will own approximately 98 percent of Cosipa.

## **Economic Challenges: Need for Stable Growth and Increased Steel Consumption and Imports**

An additional barrier to a fully competitive Brazilian domestic steel market is the lack of meaningful levels of steel imports. Import barriers, such as a nonautomatic licensing regime, remain as fully intact as they were during the U.S. steel crisis. In addition, the exorbitant cost of capital prevents potential importers from financing purchases of imported steel. The lack of competition from imports plays a crucial part in keeping domestic prices high.

### **Nonautomatic Licensing Regime**

Brazil's use of a nonautomatic import licensing system for certain steel products may contribute to the relatively low level of import competition in the Brazilian market. Brazil requires a license for the importation of nearly any product. Licenses for most products are typically obtained within five days.<sup>100</sup> However, the Brazilian government has made several products subject to nonautomatic import licensing, including steel wire rod and stainless steel. Significant delays in securing import shipment clearance under this system may discourage importers and foreign suppliers.<sup>101</sup> It may also have a chilling effect on the importing of steel products not subject to the nonautomatic procedures given the lack of transparency in Brazil's decisions to impose such procedures.

### **Capital Costs**

The high cost of capital in Brazil has a particularly pronounced negative impact on the importation of steel, including steel from U.S. producers. Because of the high expense of borrowing, potential importers cannot afford to finance the necessarily large purchases of imported steel.<sup>102</sup> Furthermore, with interest rates for short-term loans currently hovering between 25 percent and 30 percent, it is simply not economical for producers or traders to maintain inventories. Instead, steel purchasers buy just what they need on a weekly, even daily, basis,<sup>103</sup> forcing them to rely on domestically produced steel.

More affordable domestic financing in the form of lower interest rates would provide importers greater opportunity to purchase steel produced by the United States and other countries and would promote a more open steel market in Brazil. The resulting competitive pressures could provide the incentive needed for Brazilian steel producers to complete their restructuring efforts.

### **Macroeconomic Reform**

A sound economic foundation in Brazil would help to create a more stable currency environment, eliminating the artificial price advantage that Brazilian exports have enjoyed relative to U.S. domestic products.

The package of macroeconomic reforms prescribed by the December 1998 Brazil-IMF arrangement (*see box, next page*)<sup>104</sup> promises to stabilize the Brazilian economy. By controlling inflation without resorting to high interest rates, these reforms allow for more stable and reliable infrastructure development and insulation from future capital flight shocks.

Greater infrastructure development in the overall Brazilian economy, along with the planned expansion of Brazilian automotive manufacturing, should absorb some of the expected increases in Brazil's steel production and thereby reduce the pressure Brazilian steel companies feel to export new production to the United States and other world markets.

### ***Brazil-IMF Reform Program***

Throughout 1998, the government struggled to keep its currency, the real, afloat in the face of challenges such as investor flight and international loan defaults. Tactics employed included massive spending cuts and dramatic interest rate hikes.

In October 1998, the central bank raised interest rates from 29.75 percent to 49.75 percent in an effort to stem the outflow of capital and relieve the downward valuation pressure on the real. Although inflation was reduced, high interest rates restrained economic growth and stifled domestic demand, including demand for steel products.

In December 1998, the IMF and the government of Brazil entered into a 36-month stand-by arrangement involving over \$18 billion in loans. Under the arrangement, Brazil and the IMF developed economic policy measures aimed at:

- Steadily increasing national savings.
- Reducing the burden of public debt.
- Facilitating a sustainable decline in interest rates.

The Brazil-IMF reform program provides a foundation for the continued strengthening of the Brazilian economy and helps make it more secure from external shocks, such as the attacks on the real in late 1998, and its collapse in January 1999.



## CHAPTER 6

# New Players in the Global Steel Market

### Introduction

In light of the instability caused by Russia's emergence as a major exporter in recent years, U.S. steel workers and producers have expressed concern about new players that may begin to compete internationally. Three of these players, China, India, and Ukraine, have raised the most concerns as potential threats to the global steel market's stability, particularly given the continued aid of their respective governments.

Although **China** is the world's largest crude steel producer, its export potential may not be as great as overall production might suggest, due to its relatively small number of efficient producers. However, the Chinese government is undertaking a concerted effort to upgrade key producers. Government planned and supported investment projects will improve production techniques and product quality. And a government-directed consolidation of the industry will concentrate steel production around a small number of large industrial conglomerates. The Chinese government intends for these producers to enjoy the full benefits of economies of scale and diversified business operations. If the domestic market cannot absorb their production, they could become more significant exporters, and continued government support raises concerns about the potential for unfair trade. With China's accession to the World Trade Organization (WTO), the United States will have available several key new mechanisms for addressing trade concerns, including a special safeguards mechanism for import surges and increased disciplines for subsidies.

**Ukraine** has significant potential for exporting large volumes of steel in the near term. While Ukraine was not a major player in the 1998 steel crisis, prior to and since 1998 Ukraine has exported large volumes of steel to the United States. Most of Ukraine's steel production facilities remain government-owned, and the government continues to focus on steel exports as a way of revitalizing the formerly state-controlled economy. The government's involvement in the steel sector increases the potential for unfair trade in international steel markets.

**India** could also become a substantial exporter. Over the past few years, domestic demand in India has greatly decreased, increasing the need for Indian steel producers to export their products. In addition, government subsidization has created a steel sector that has a large amount of overcapacity. Given the government's involvement in the steel sector, the possibility of unfairly traded steel entering the global market rises as India increases its exports.

# The Chinese Steel Industry

**Labor and Industry Concerns.** China has never been a major steel exporter and did not play a meaningful role in the surge of steel imports into the United States in 1998. However, several factors are seen as making China a legitimate medium- to long-term concern for steel workers and producers in many countries, including the United States.<sup>1</sup>

- Production levels that have more than doubled in the last ten years, making China the world's largest producer of crude steel.
- Large-scale (government-planned) investments to introduce new technologies and improve productivity.
- An array of nontariff barriers to restrict steel imports and an import substitution strategy targeting finished steel products.
- Two recent U.S. antidumping investigations involving Chinese steel producers, although involving relatively small amounts of steel.

U.S. steel workers and producers see China's government support and tremendous steelmaking capacity as enabling Chinese steel producers to enter international markets in a broad range of products, displacing competitors with ever increasing volumes. However, in the short term, China faces some major structural impediments, and in the medium to long-term, it will for the first time face the rigors of WTO compliance and review.

**Structural Impediments.** China does not yet pose the export threat that its size might otherwise suggest, for reasons that include the following:

- China is a large and growing consumer of steel products, making it a net importer.
- China is struggling to fix a myriad of structural and performance problems that threaten its steel industry: industry fragmentation, poor product quality, low labor productivity, an overly narrow product range (concentrated at the low, value-added end of the market), growing domestic demand and supply imbalances and obsolete plant and equipment. The industry remains grossly inefficient, technologically backward and unable to meet adequately the ever-changing needs of the market.

These problems are largely due to China's unfinished economic and institutional reforms (particularly in the case of the large state-owned enterprises operating in China's heavy industrial sector)<sup>2</sup> and the government's need to consider non-economic objectives (*e.g.*, employment) in its restructuring efforts. Although these problems remain in certain sectors, China has made great strides toward overall economic reform, *e.g.*, agriculture, trade and the development of industry and services outside of the state-owned enterprise sector.

**China's WTO Accession.** Whether or not Chinese steel producers evolve into world-class competitors, China's pending WTO accession dramatically reduces their ability to benefit from market distorting practices. Accession will curtail a number of tactics currently employed by China to restrict steel imports and greatly narrow China's ability to subsidize future steel exports. As a result of WTO accession, China will do the following:

- Reduce tariffs on steel imports from an average 10.3 percent to 6.1 percent, with many of the largest reductions involving high-end specialty steel products.
- Eliminate various nontariff barriers, including import substitution measures, import quotas and nonautomatic import licensing and import registration requirements.
- Eliminate designated state trading in the steel industry.
- Eliminate its prohibition on foreign companies distributing imported steel products in China or providing related distribution services.

- Be subject to strong subsidy disciplines under the WTO Agreement on Subsidies and Countervailing Measures, including elimination of export subsidies and import substitution subsidies.
- Remain subject to a special, nonmarket economy methodology for counteracting dumping for at least fifteen years.
- Be subject to a special, China-specific safeguard mechanism to block import surges for twelve years.

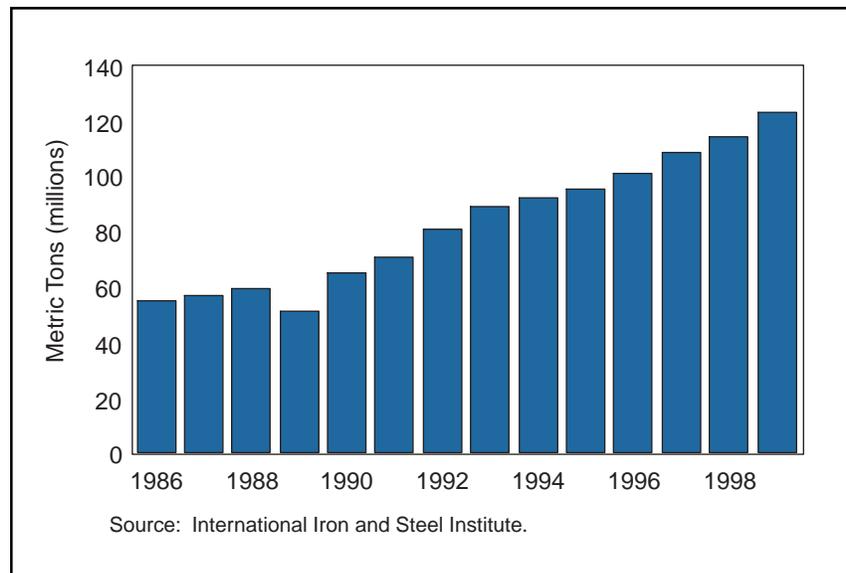
Furthermore, exposure to international competition could drive a rationalization of the Chinese steel industry. Already the government's investment strategy seems to recognize that the Chinese steel industry must go through a period of serious consolidation to prepare it for the competition that will be unleashed by its WTO membership.

## China's Export Potential

China today is the world's largest producer of crude steel, with annual output just over 120 million metric tons (MT) in 1999.<sup>3</sup> China achieved the top spot in 1996, after having more than doubled its annual output in just ten years (*Chart 6-1*).

China's 1999 crude steel output places it ahead of the United States (97 million MT) and Japan (94 million MT), the world's second and third largest crude steel producers, respectively.<sup>4</sup>

In spite of its tremendous overall capacity, current structural and performance problems and growing domestic steel demand (sufficient to make China a net importer of steel) suggest that China's export potential is limited in the short term, and uncertain in the medium to long term.



6-1. Crude Steel Output, China

## Old Equipment and Outmoded Production Techniques

China's steel industry comprises a small number of large and medium-sized firms and thousands of small-scale operations.<sup>5</sup> The largest producers are all state-owned enterprises (*see box next page*).<sup>6</sup> Whether in the steel or any other sector, state-owned enterprises in China generally suffer from many of the same problems—problems the Chinese government is trying to address. Corporate governance remains weak; budget constraints are not sufficiently hard; large state-owned enterprises carry significant social welfare burdens; financial and cost accounting standards remain lax; and decentralization has resulted in local and central government policies that often conflict. These issues are at the root of many of the structural and performance problems besetting the steel industry (*see second box next page*).<sup>7</sup>

**Fragmentation.** In 1998, fifty steel firms in China produced more than 500,000 MT of crude steel; thirty-four firms produced more than 1 million MT; and four firms produced more than 5 million MT. None produced more than 10 million MT. The four largest firms account for more than 30 percent of total annual steel output, and the top sixty-seven steel producers now account for close to 90 percent of China's annual crude steel output.<sup>8</sup>

### ***China's Big Four***

Baoshan, Anshan, Shougang, and Wuhan are China's four largest steel producers: Baoshan is described by many as China's largest, most modern and efficient steel producer, with output of close to 10 million MT of crude steel per year. It is said that Baoshan's core steel operations benefit from a skilled and productive workforce on par with world-class producers and from modern management and accounting systems. In 1998, Baoshan reported sales in excess of \$4 billion and net profit close to \$300 million. Exports accounted for approximately 20 percent of total finished steel output. Baoshan exports hot- and cold-rolled flat products to Asia and North America. In terms of export potential, Baoshan has a distinct geographic advantage over most other large Chinese steel companies given its ready access to nearby port facilities. Baoshan has China's most advanced steel product line, with annual capacity of 400,000 MT of tinplate and coils, 325,000 MT of silicon sheet and coils, 160,000 MT of color sheet, 2.6 million MT of cold-rolled sheet and coils, 2.8 million MT of hot-rolled plate and coils, 2.2 million MT of semi-finished billets and 500,000 MT of pipe and tube products.

Anshan, Shougang and Wuhan constitute a second tier of companies from an organizational, managerial and performance standpoint. These three are much older than Baoshan and still carry the legacies of state planning. All three are financially weak and in need of significant restructuring, retooling and reorientation before they can achieve Baoshan's level of performance. Anshan and Wuhan produce a range of steel products, *e.g.*, sections and plate, and hot-rolled and cold-rolled coil. Shougang's product line consists mostly of sections, wire rod and plate. All three export, primarily to regional Asian markets.

### ***The Root of the Problem***

The structure and performance problems that confront the steel industry stem from the incomplete nature of China's economic reforms to date. There continues to be a lack of sufficient separation between the government (at all levels) and state-owned enterprise management. Corporatization has done little to improve corporate governance at large state-owned enterprises, in part because few large state-owned enterprises have converted to limited liability companies, and those that have remain wholly or majority state-owned. The social, legal and institutional boundaries of large state-owned enterprises remain unclear. Large state-owned enterprises continue to shoulder tremendous social welfare burdens, having to finance the cost of pensions, schools, housing, entertainment, and medical and health benefits. Lines of authority, responsibility and accountability are not well defined. As a result, managers, ministries, and governments at all levels view state-owned enterprise income and assets as their own and state-owned enterprise expenses and liabilities as someone else's problem.

In this environment, state-owned enterprises cannot function as value-adding, profit-maximizing firms. Instead, they serve as vehicles for rent-seeking behavior and for providing social welfare services. Not surprisingly, state-owned enterprise liabilities have increased dramatically along with insolvencies. Nevertheless, the troubled, money-losing state-owned enterprise sector continues to use a disproportionate share of China's investment resources.

Bank loans have kept state-owned enterprises alive. Four large, state-owned banks dominate lending activity. Many of the loans are not being paid back. And because these banks are either unable or unwilling to raise interest rates or lend to more credit worthy firms, bad debts have grown to the point where they collectively are insolvent.

**Technological Backwardness.** China's steel production capacity—now greater than 140 million MT<sup>9</sup>—is based on outdated steelmaking technology and equipment. Approximately one-third of capacity was built with equipment that predates the 1970s, with some equipment still in use that predates the 1950s. About one-half of capacity was built with equipment from the early 1980s.<sup>10</sup> Automation and computerization of the production process is sorely lacking, as are adequate quality control systems.

As a result, many Chinese steel firms contribute significantly to environmental pollution. China now recognizes environmental pollution as a huge economic and social problem that must be controlled in order to sustain the country's overall economic development.<sup>11</sup> Poor product quality has also been a significant barrier to the steel industry's ability to enter many international markets.<sup>12</sup>

### **Millions of Employees With Nowhere to Go**

An oversized and unproductive workforce compounds the efficiency and technological problems facing China's steel industry. To put the labor problem in perspective, consider that one of China's largest steel producers, Shougang, currently employs as many steel workers as all U.S. steel companies combined.<sup>13</sup> Roughly 1 million to 2 million people are actually engaged in iron or steel production in China.<sup>14</sup> Thus, labor productivity in China's steel industry—conservatively measured on the basis of 120 million MT of crude steel output—is between 60 MT and 120 MT per worker per year. In contrast, U.S. labor productivity exceeds 600 MT per worker per year.<sup>15</sup> Baoshan is the exception, where workers reportedly average 650 MT per year.<sup>16</sup>

In 1998, the government set a goal of reducing the number of steel workers from 1.3 million to 1 million, with targets for 2000 and 2005 of 800,000 and 600,000, respectively.<sup>17</sup> It remains to be seen, however, whether such goals are realistic from a socioeconomic standpoint. China's steel workers tend to be concentrated at large state-owned enterprises. Because housing and pension benefits at these state-owned enterprises generally are not portable, the loss of a job can translate directly into the loss of one's home and accumulated pension benefits.

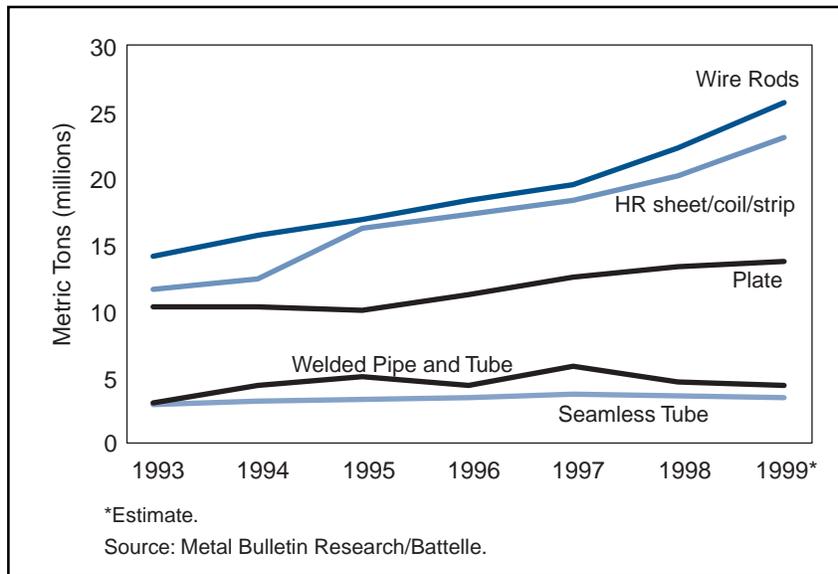
The relatively large concentration of workers at steel firms also means that the impact of layoffs on the local economy can be significant. In many cases, steel producers are the primary employer in a region and the primary source of tax revenue for local governments. For these reasons, local governments often oppose layoffs.

Nevertheless, steel makers are shedding labor at a relatively rapid rate. The government's initial goal of reducing the industry workforce by 300,000 workers in 1998 reportedly was met.<sup>18</sup> However, for labor productivity in China's steel industry to reach international levels, steel producers will have to go much farther. A limit to how quickly this can happen is the economy's ability to absorb displaced steel workers when many other sectors are also restructuring. In 1998, 12 million workers were laid off throughout China, and 7.5 million more in the first half of 1999.<sup>19</sup> The government's ability to manage the socioeconomic problems of worker dislocation and re-employment will no doubt determine in large part the extent and speed with which steel industry restructuring takes place, and ultimately, the ability of steel producers to compete abroad.<sup>20</sup>

### **Wrong Product Mix**

**Product Mix Imbalance.** Despite large annual crude steel and finished product output, China's steel industry has not been able to control a growing imbalance between market demand and supply. Lower-value-added products (or "low-end products"), e.g., rails, bars, rods, pipes and tubes, wire rod, sections and plate, account for about 70 percent of total finished steel output.<sup>21</sup> China's capacity in these areas increased dramatically in the late 1980s and early 1990s in response to chronic shortages and a construction boom. Since then, demand for low-end products has slowed, while demand for higher value-

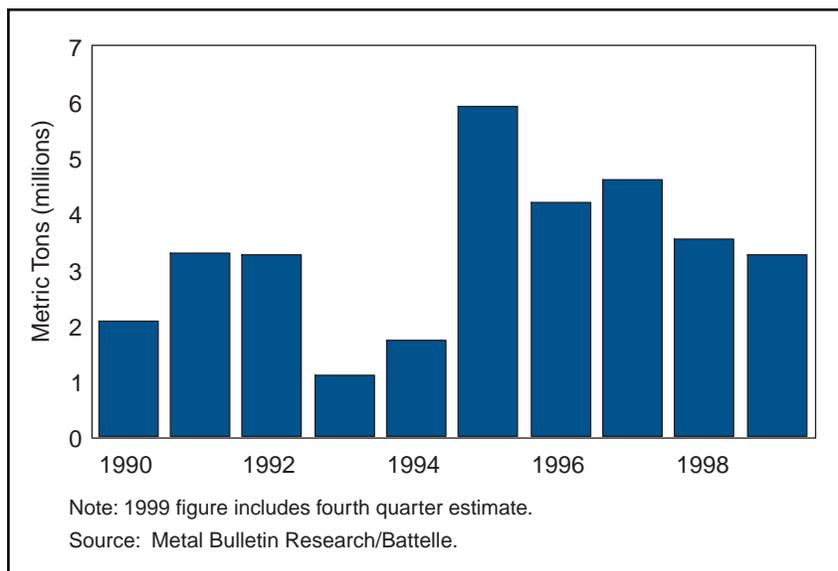
added products (or “high-end products”), e.g., hot-rolled and cold-rolled sheet, galvanized sheet, stainless steel and tinplate, has increased. Producers have not adjusted to this shift in market demand and continue to churn out low-end products in increasing volumes (Chart 6-2).



**6-2. Finished Steel Output by Product Type, China (1993–1999)**

As a result of the government’s inability to stem the flow of low-end steel, there has been a substantial increase in inventories. By some estimates, the current rate of oversupply exceeds 10 million MT per year,<sup>22</sup> and accumulated inventories reached 30 million MT at the end of 1999.<sup>23</sup> This has led to serious cash flow problems for firms, and some have resorted to paying their bills in kind through the exchange of steel for raw materials. Such payments may represent as much as 30 percent of total industry sales.<sup>24</sup>

**Government Import Substitution Goals.** This imbalance has given rise to what the Chinese government views as China’s excessive dependence on imports of high-end products. Total steel imports grew from 12 million MT in 1998 (about 10 percent of consumption) to an estimated 15 million MT in 1999 (about 12 percent of consumption). Nearly 70 percent of steel imports in 1999 were high-end flat products including hot-rolled and cold-rolled sheet, stainless steel, galvanized sheet and tinplate.<sup>25</sup> If Chinese producers collectively are unable to determine the right product mix to satisfy demand at home, it is unclear how they will do so to satisfy demand abroad.



**6-3. Chinese Finished Steel Product Exports (1990–1999)**

### Historically, Not a Big Exporter

Historically, China has never been and is not now a steel exporter of significance, as the Chinese have focused their attention on the domestic market (Chart 6-3). Given average annual finished steel production of 99 million MT during 1996–1998<sup>26</sup> and average exports of 4.1 million MT per year, China consumes about 96 percent of its finished steel output. Per capita steel consumption is low by international standards, but it is growing, having increased from 60 kg in 1990 to approximately

100 kg at present. Per capita consumption is expected to continue growing at this pace.<sup>27</sup> Current total consumption exceeds 125 million MT per year. With such a large and growing steel market, China not only absorbs most of its own production, but is a net importer.

Most of the finished steel production that China exports goes to regional markets in Asia. The regional nature of China's steel exports reflects the high weight-to-value ratio of much of its steel output and the fact that China does not yet consistently meet international product standards, particularly for high-end steel. In large part because of the Asian financial crisis, China's steel exports dropped approximately 23 percent between 1997 and 1998 (roughly 1 million MT in absolute terms), due to reductions in shipments to what had been China's largest export markets, Korea and Japan.<sup>28</sup>

**Impact on the United States.** Falling exports to Asia appear to have resulted in some trade diversion to the United States, but not to the extent that China played a significant role in the U.S. steel crisis in 1998. The United States imported 434,000 MT of steel mill products from China in 1996; 433,000 MT in 1997; and 574,000 MT in 1998. In contrast, steel mill imports from Japan rose from 2.3 million MT in 1997 to 6.1 million MT in 1998, and imports from Russia rose from 3 million MT in 1997 to almost 5 million MT in 1998. In 1999, steel mill imports from China increased to approximately 700,000 MT,<sup>29</sup> possibly due to the effect of U.S. antidumping orders on imports of hot-rolled steel from Japan, Brazil, and Russia.

**U.S. Antidumping Cases.** Chinese steel producers have been subject to a limited number of U.S. antidumping actions covering small volumes of trade. A 1997 suspension agreement on carbon, cut-to-length plate settled a case involving Shougang, Wuhan and Anshan and approximately 271,000 MT of trade (about 19 percent of total U.S. carbon cut-to-length plate imports). A 1999 investigation of cold-rolled flat-rolled carbon-quality steel products involved Baoshan and approximately 125,000 MT of trade (about 4 percent of total U.S. cold-rolled flat-rolled carbon-quality steel imports).<sup>30</sup> This investigation resulted in an affirmative finding of dumping, but a negative injury finding by the U.S. International Trade Commission.

## China's Industrial Development Plans

China's serious structural and performance problems and historically low export volumes might make China's emergence as a major steel exporter seem unlikely. However, because of the Chinese government's industrial development plans for the steel industry, there remains concern. China's leaders have historically viewed a modern and efficient steel industry as a fundamental basis for sustainable economic development. For China's current economic reformers, a strong steel industry is an indispensable part of China's overall effort to meet growing demand for steel products in strategic, steel-intensive sectors such as transportation and energy infrastructure, automotive manufacturing, shipbuilding, and other so-called "pillar industries" that will form the backbone of China's rapidly growing economy.<sup>31</sup>

The government's efforts to strengthen the industry are focused on consolidation and modernization:

- **Consolidation** will concentrate production around the big four producers and eliminate the inefficiencies and wasted resources of small-scale production.
- **Modernization** through plant and equipment upgrades and improved industrywide production methods and management techniques will make steel makers more competitive and more responsive to market demands. Modernization also encompasses efforts to give steel makers a fresh start by reducing their debt burden with debt-equity swaps and to develop China's top producers into industrial conglomerates that can draw profits from diverse business operations.

China's four largest steel producers—Baoshan, Wuhan, Anshan, and Shougang—are at the forefront of this strategic development effort. Through plant and equipment upgrades and improved production methods, China's industrial planners hope to accomplish four things:

- Increase the rate of continuous casting to 100 percent.
- Automate and computerize production lines.
- Increase the average capacity of blast and steelmaking furnaces.
- Make greater use of secondary metallurgical processes.

The goal is to increase the supply of domestic substitutes for higher-end products that China imports in relatively large volumes, *e.g.*, cold-rolled sheet for automotive applications, stainless steel and oil country tubular goods.

### **Modernization**

The Chinese government realizes that for China's steel industry to succeed in the twenty-first century, surviving steel makers must behave more like profit-maximizing firms, with respect to the types and volume of products they sell, the terms and conditions of sale and their reactions to changes in revenue and cost. Domestic steel makers must in general learn modern production and managerial techniques and become proficient at operating in a market environment.

**Decentralization.** The government is unwilling at this time to fully privatize the steel industry. Instead it has opted for progressive decentralization of control over the steel industry. Consistent with its general approach to reform in the state-owned enterprise sector, the central government continues to oversee large state-owned enterprises, while allowing administrative control over smaller producers to devolve to provincial and local governments. In 1998, the central government took several steps toward decentralization:

- Downgrading the Ministry of Metallurgical Industries to a state bureau, which is now known as the State Administration of Metallurgical Industries (SAMI) and is part of the State Economic and Trade Commission (SETC).<sup>32</sup>
- Eliminating SAMI's investment oversight function and its authority to formulate production and material distribution plans for specific enterprises.
- Liberalizing internal distribution and export trading rights in steel. SAMI now performs more of a pure industrial policy function, for example, determining which product areas need support.<sup>33</sup>

Consistent with these industry-specific efforts, and as part of broader reform plans (*see box next page*),<sup>34</sup> the government is working to ensure that steel producers face harder budget constraints, pay greater attention to cost and profit considerations and become generally more attuned to the market. Through the actual and threatened removal of managers of financially troubled state-owned enterprises, and a reduction in overall assistance and support, the government is attempting to send a signal that steel producers must learn the ways and rules of the market. However, change is not coming easily, and the legacy and effects of state planning are proving difficult to erase. For example, it appears that the new bank lending policies do not apply to large state-owned enterprises.<sup>35</sup>

### **Government-Planned Investment**

The government recently announced that \$6 billion will be spent over the next few years to upgrade and transform the steel industry, with the hope of ensuring its international competitiveness when China enters the WTO. Baoshan, Wuhan, Anshan, and Shougang head the list of steel producers slated to benefit from this assistance. Nearly \$3.4 billion will be in the form of low-interest loans. It is not clear whether this amount represents the volume of low interest loans or, alternatively, the reduction in interest payments that the government will cover.<sup>36</sup> Furthermore, the central government—in administering such key investment projects—has in the past directed that local governments give priority to key projects in terms of land use, transport, raw material, equipment, water and power supplies.<sup>37</sup>

### ***Current Reform Efforts in the State-Owned Enterprise and Banking Sectors***

Past reform efforts have never been quite enough, and Chinese analysts sometimes refer to “a bowl of half-cooked rice” in describing reforms to date of state-owned enterprises. However, many observers believe that the government now understands fully the threat to the economy that the banking and state-owned enterprises sectors pose—particularly in a slow growth environment—and is taking significant steps to tackle the problems.

Banks are now subject to higher capital adequacy ratios and stricter accounting and loan classification standards, and loan officers are being held personally (and permanently) liable for new loans that go bad. The government is also working to enforce commercial lending practices at the local level, to prevent local government pressure for soft loans from undermining the government’s reform efforts. These new policies are designed to set up banks as true commercial lenders and limit policy lending to four policy banks.

The result has been a significant slowdown in bank lending to state-owned enterprises and a hardening of the budget constraints they face. Together with these new bank lending policies, debt-equity swaps are being used to clean up state-owned enterprise and bank balance sheets, and give them a fresh start in remaking themselves into market-oriented, profit-maximizing operations.

Many small and medium-sized state-owned enterprises are being liquidated or privatized. Many managers and entrepreneurs see increasing opportunities in China’s rapidly growing private sector, which accounts for anywhere from 10 percent to 30 percent of GDP. Reform-minded provincial governments want to reduce or eliminate what they see as a net drain on their scarce resources and finances. The privatization of many small and medium-sized state-owned enterprises is real in the sense that it involves either (1) the outright sale of whole state-owned enterprises or their assets to individuals or (2) the “appropriation” of assets by managers and/or workers for their own private use, much like the spontaneous privatizations that occurred in Eastern Europe and Russia.

Although the central government appears determined in its latest reform efforts, some policy inconsistencies and contradictions may still dilute the latest round of reform efforts. This is particularly true for large state-owned enterprises, which the government intends to operate in strategic industries such as autos, telecom, steel, machine building, energy, aerospace, petrochemicals, computers, and electronics. For example, the new lending practices apply only to small- and medium-sized state-owned enterprises, not to large ones. The government’s 1998–1999 infrastructure spending program—designed to buoy state-owned enterprises and boost aggregate demand—was run through the banks. Using banks and state-owned enterprises in this manner necessarily interferes with efforts to commercialize the banks and reduce *ad hoc* government intervention in enterprise affairs.

Government-planned investment accounts for a large share of the steel sector’s total investment in fixed assets. The nature of these investments remains a concern, despite ongoing efforts to improve the efficiency with which investment funds are allocated and used in China. Both the allocation and use of investment funds are based in large part on nonmarket signals.<sup>38</sup> The technological upgrading and transformation of China’s steel industry is predicated, in large part, on investment plans formulated by the State Development Planning Commission (SDPC), the SETC, provincial governments and the largest state-owned enterprises. The investment plan for steel must be approved by the State Council and is part of China’s broader five-year plan for the country.<sup>39</sup> China’s ninth five-year plan ends this year, and the tenth begins in 2001.

In its five-year plans, China decides well in advance on the aggregate, economywide amount of investment that will be made over the period and the allocations to specific industries and sectors. For example, in the ninth five-year plan (1996–2000), the central government decided that a total of \$1.1 trillion would be invested, with a little over half of that total going to seven major industrial sectors: primary industries

(including steel), energy, electronics, communications and transportation, petrochemicals, automobile manufacturing and machine building.<sup>40</sup> These investments are financed for the most part with state bank lending supported by the savings of China's workers and farmers.

### Effect on China's Big Four

Under China's five-year plans, its four largest steel producers have undergone technological upgrading and transformation.

**Baoshan** represents the best example of explicit government support for strategic development purposes. Baoshan was modeled after Nippon Steel's Kimitsu mill. Construction began in the late 1970s and production commenced in 1985. Baoshan is, by design, the largest single Chinese steel supplier to China's automotive, aviation, petroleum and shipbuilding industries, and is one of China's largest manufacturing companies. Baoshan is the government's primary steel import substitution vehicle.<sup>41</sup> As a result, China's ninth five-year plan focused on increasing Baoshan's capacity to produce higher-value-added flat products, which China now imports in relatively large volumes. These products include cold-rolled sheet for automotive applications, stainless steel, high-tensile strength wire rod and tinplate<sup>42</sup> (*see box*).<sup>43</sup>

**Wuhan** shut down its last open-hearth furnace and commissioned two new basic oxygen furnaces at the end of 1998.<sup>44</sup> Two continuous casters came on line in June 1999. Output from these casters will feed the production of value-added steel products including high-strength, prestressed concrete reinforcement rod and high-carbon

spring steel for automotive applications. Two new bloom casters will raise Wuhan's continuous casting ratio to 100 percent. Substantial investment in Wuhan's downstream operations will upgrade flat steel production, including both hot-rolled and cold-rolled coil. Renovation of a 2,800-millimeter (mm) reversing mill is under way in order to produce wider and better plate to supply a growing number of large-scale bridge construction projects. Wuhan has also upgraded its existing hot-rolled and plate mills to improve overall finishing quality.<sup>45</sup> Cold-rolled sheet capacity has also increased, with testing begun in 1998 for the production of thin, cold-rolled sheet for automotive applications.<sup>46</sup>

#### *Sino-Foreign Joint Ventures*

Technological upgrading and transformation is also taking place on a limited basis through Sino-foreign joint ventures. For example, in 1997, the SDPC approved a joint venture between Shanghai Pudong (which Baoshan absorbed in 1998) and Krupp Thyssen Nirosta (KTN) of Germany, the largest producer of cold-rolled stainless steel in the world. KTN holds a 60 percent equity stake in the joint venture (called Shanghai Krupp Stainless), with Shanghai Pudong holding the remaining 40 percent. Financing of the initial \$300 million investment was shared by KTN, the International Finance Corporation of the World Bank, a German bank, and Shanghai Pudong.

**Anshan's** modernization efforts have lagged behind those of Baoshan and Wuhan. Nevertheless, Anshan has recently picked up the pace, focusing on increasing its continuous casting ratio to 100 percent by this year and increasing the share of

output accounted for by processing beyond the hot-rolled stage. Several new continuous slab and bloom casters have been installed, a 1,780-mm wide hot strip mill is being constructed, and existing hot-rolled and cold-rolled mills are being upgraded and expanded.<sup>47</sup>

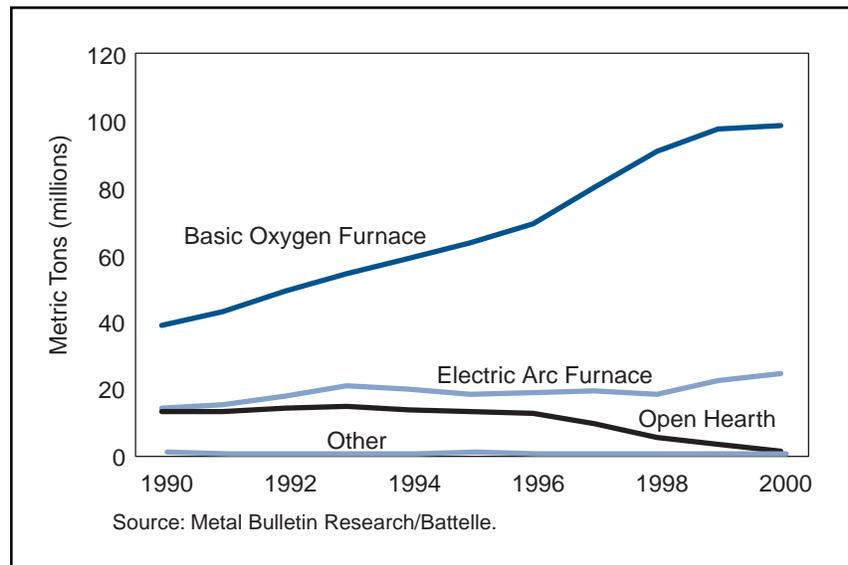
**Shougang**, located on the outskirts of Beijing, has made pollution abatement a top priority and has steered recent investment under the ninth five-year plan toward slag processing and the reduction of air-borne pollutants. Shougang primarily produces bar; plate; welded and seamless pipe; wire rod; and light, medium and heavy sections, but it is considering a move into higher value-added flat products. Shougang is currently installing a new carbon hot-rolled coil line with an annual capacity of 4 million MT to meet expected demand from China's automotive sector. In 1999, Shougang installed a ladle refining furnace for

wire rod production with an annual capacity of 700,000 MT, and plans are in place for the installation of additional, secondary metallurgy furnaces.<sup>48</sup>

**Old Technology Phase-Out.** On an industrywide basis, China intends to phase out the use of open-hearth furnaces by the end of 2001.<sup>49</sup> The share of total output produced with open-hearth furnaces has dropped from 20 percent in 1990 (13.2 million MT) to an estimated 1 percent in 2000 (1.3 million MT) (*Chart 6-4*).

By relying exclusively on basic oxygen and electric arc furnaces, the government hopes to increase throughput and furnace yields and improve hot metal quality. The rate of continuous casting is also increasing, which will reduce handling and reheating costs, and increase throughput and yield. The share of output produced with continuous casting has gone from just over 20 percent in 1990 (14.8 million MT), to an estimated 70 percent in 1999 (85.8 million MT) (*Chart 6-5*).<sup>50</sup> To a limited extent, the government is also trying to increase the industry's reliance on secondary metallurgy and automated and computerized controls to further improve metal and finished product quality.

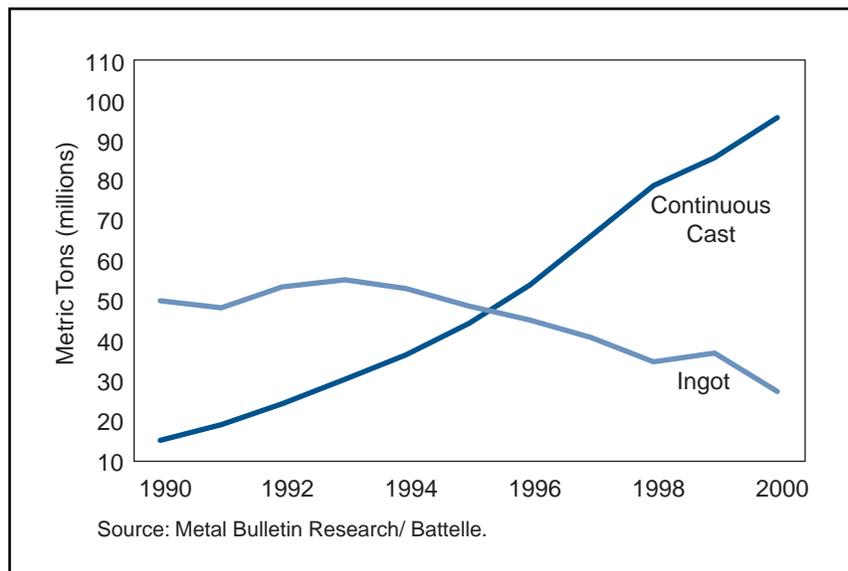
In general, the capital stock of the medium-sized and large producers that survive consolidation will need wholesale upgrading or replacement. Given practical and financial limitations, the government has adopted a piecemeal approach, targeting what it views as strategically important products, producers and production methods.



**6-4. Raw Steel Production by Furnace Type, China**

### Business Diversification: The Korean Chaebol Model

Company diversification is another element of the government's industrial plan to develop flexible, versatile producers that can survive the international steel market's worst conditions by having multiple profit centers independent of their core steel operations.<sup>51</sup> According to an OECD report, "much of the current consolidation drive is fueled almost exclusively by size considerations; it rests on the assumption that large corporate groups, combining



**6-5. Steel Production by Casting Process, China**

huge capacity, diversified production lines and large internal financial resources (*i.e.*, national champions) are needed to match foreign competition.”<sup>52</sup> The central government’s belief that bigger is better for state-owned enterprises stems in part from the impression that Korea’s chaebol contributed significantly to Korea’s rapid growth, development and role in world industrial production and trade. Chinese officials are also aware of the structural weaknesses and institutional inflexibility in the Korean system (which the Asian financial crisis laid bare). Nevertheless, they intend to take the best from the Korean model and build a better model with Chinese characteristics (*see box*).<sup>53</sup> They seek a modern enterprise and banking system

with the resources and strength to compete successfully in world markets, but without the institutional and structural weaknesses that would leave China unable to cope with another Asian financial crisis.

### ***Building a Better Chaebol?***

Baoshan is an example of the type of large industrial conglomerate that the government wants to build. Baoshan has thirty-seven wholly owned subsidiaries involved in trade, finance, information technology, engineering, computer system administration, transportation and shipping and construction. It recently entered into a joint-venture agreement with Dongbei University Software Group to establish the Baoshan Dongda Information Industry Group, the largest software company in China. Dongda has future plans to move into software development, systems integration and the production of digital medical equipment.

Borrowing only the good aspects of the Korean model may be much more difficult in practice than in principle, given the current problems in the state-owned enterprise and banking sectors and China’s unfinished reforms. Moreover, China’s industrial planners may be placing undue importance on the role of large firms, perhaps to the detriment of China’s overall growth and development. Other Asian economies have successfully industrialized by promoting the growth and development of a private sector made up of small and medium-sized enterprises.<sup>54</sup>

The ultimate effect of these diversification efforts on China’s domestic steel market and its steel producers’ competitiveness is unclear. In discussing China’s move toward the consolidation of state-owned enterprises, the Organization for Economic Cooperation and Development (OECD) points out that “recent international experience however has shown that such a course may bear negative results in the medium term . . . such holdings [groups] often stifle the development of competition.”<sup>55</sup> However, some observers have a more basic concern that current organizational and managerial weaknesses in the state-owned enterprise sector will preclude any gains from diversification.<sup>56</sup>

## **Challenges, Obstacles, and Competing Interests**

The government’s mergers and acquisitions strategy walks a fine line between using the strong to help the weak and weakening China’s strongest companies. Many of the steel company mergers in China have involved the forced marriage of financially healthy and unhealthy firms, where little or no gain is realized by the financially healthier firm. While these types of rationalization mergers allow the government to temporarily avoid the socioeconomic consequences of more direct shutdowns and large-scale layoffs, they clearly work against the government’s long-term efficiency goals.

The 1998 merger of Baoshan, Shanghai Meishan Group and Shanghai Metallurgical Holding Company (SMHC) is a case in point. Although the resulting industrial conglomerate now accounts for 20 percent of the fixed assets in the steel industry, bigger in this case is not necessarily better. The merger saddled Baoshan—China’s largest, most modern, efficient and profitable producer—with outdated equipment, additional debts and significant pension obligations. The addition of SMHC alone increased Baoshan’s payroll from the 11,000 employed directly at Baoshan’s steelworks to over 131,000 workers.<sup>57</sup> Expressing concerns that the merger has undermined Baoshan’s long-term viability, Standard and Poor’s downgraded Baoshan’s debt rating to junk-bond level.<sup>58</sup>

Notwithstanding the negative impact that mergers and acquisitions may have on the operations of China's large steel makers, the broad macroeconomic goal of consolidation is to reduce the tremendous environmental pollution and waste of economic resources that result from the "backyard" operation of thousands of small-scale steel operations. To eliminate this waste, the government—through a combination of mergers, acquisitions and mill shutdowns over the next twelve to fifteen years—wants to concentrate production around a small number of large industrial conglomerates that will enjoy the full benefits of economies of scale and diversified business operations. In 1999, the SETC scheduled more than 2,300 small-scale iron and steel plants for elimination.<sup>59</sup>

### Results of Consolidation Efforts

Because industry consolidation efforts have been under way for a relatively short period of time, there is little data on the results. A review of available data indicates that the government's efforts have had only limited success to date.

**Shutdowns.** By November 1999, 550 small iron and steel plants apparently had been shut down, eliminating 840,000 MT of steel production.<sup>60</sup> Although this number of shutdowns appears significant, the production volume associated with these plants is less than 1 percent of industrywide production.

**Bankruptcies.** Bankruptcies appear to be occurring on an even smaller scale. While this data is also sketchy, eighteen bankruptcies apparently occurred in 1998 and perhaps a handful more in 1999.<sup>61</sup>

**Mergers and Acquisitions.** At the end of 1999, media reports indicated that SAMI had selected seven financially troubled companies for merger in the coming year, in addition to forty-six similar mergers that occurred last year.<sup>62</sup>

### Obstacles

The relatively slow progress in shutting down mills may be attributable to the fact that China's steel market, in some sense, must overcome many of the same problems that characterize the world steel market. First, many of the mills that the government wants to shut down are operating for noneconomic reasons, with the support of local and provincial governments. Second, plant closures are costly, particularly in terms of the bad debt that in many cases must be written off. One strategy used to deal with this problem is debt-for-equity swaps.

**Local and Provincial Resistance.** To shut down these mills, the government's plan is to cut them off from all bank credit and other resources needed for production.<sup>63</sup> Such an approach will likely work where the local and provincial governments are in agreement. But the central government often lacks effective control at the local and provincial level over these mills and the resources they use.<sup>64</sup> Therefore, the government's approach may not work where local or provincial officials oppose shutdowns because of concerns about the public finance and socioeconomic consequences. Moreover, where local or provincial governments have opposed a shutdown, the central government must also block future market re-entry.

**Debt-Equity Swaps.** The government has recently implemented a debt-for-equity swap program to give heavily indebted steel makers and other large state-owned enterprises a fresh start at remaking themselves as market-oriented, profit-maximizing operations. So far, at least seventy-eight state-owned enterprises have signed debt-equity agreements, including several of Baoshan's subsidiaries: the Pudong Steel Company, Shanghai Steel Companies No. 1 and 5, and the Meishan Group. About ten steel companies have been deemed eligible for swaps, including Anshan, Panzhihua Steel, Tianjin Seamless Tube, Benxi Steel, Baotou Steel, Xining Special Steel, and Shuicheng Steel.<sup>65</sup>

Under the program, state-owned commercial banks transfer the debts of large, screened state-owned enterprises to one of four asset management corporations (AMCs) in exchange for bonds backed by the government. The banks get bonds because the corporations have no cash. The AMCs then swap this debt for a controlling interest in the indebted state-owned enterprises, which are being converted into joint-stock companies. The idea is that with the debt burden lifted and the AMCs free to restructure the state-owned enterprises as they (the owners) see fit, the state-owned enterprises will become profitable. In turn, the AMCs will be able to sell their shareholdings to investors and make good on the bonds issued to the banks.<sup>66</sup> Unfortunately, without privatization and institutional reform, potential investors have little reason to believe that the AMCs will be able to successfully remake state-owned enterprises. If investor demand for AMC shareholdings is insufficient, banks will likely lend again to struggling state-owned enterprises to keep up the value of the bonds.<sup>67</sup>

While the outcome of debt-equity swaps will differ from company to company, the outlook for steel companies tied to AMCs does not look good. There is little, if any, domestic or foreign investor interest in China's large, struggling state-owned enterprises. Debt-equity swaps may do little more than protect the jobs of company managers who see the swaps as the only way to clean up their balance sheets and improve their financial statements.<sup>68</sup>

There are still questions about the process by which authorities ultimately select the companies for these debt-for-equity swaps and whether or not the swaps are being offered as a one-time deal. Critics contend that the swaps are simply a way to dress up the books of debt-ridden state-owned enterprises. This skepticism is due largely to the fact that although seventy-eight enterprises have signed debt-for-equity contracts, none of the agreements had actually entered the AMC-management stage as of February 2000.<sup>69</sup> The World Bank warns that debt-equity swaps should not be seen as a panacea for money-losing state-owned enterprises.<sup>70</sup>

## **China Meets the WTO**

Historically, China has used a number of trade restricting measures to protect its domestic industry from international competition, including tariffs, quotas, limitations on trading rights, product inspection requirements and unjustified fees and taxes. When China's likely WTO commitments are viewed in relation to China's industrial development policies in the steel sector, certain conflicts become evident. Consequently, as China makes the transition to full membership in the WTO, many of these barriers will come down. Following the conclusion of the landmark U.S.-China bilateral agreement reached in November 1999, it is possible to provide some indication of what specific terms may affect the steel sector.

### **Tariffs**

It is anticipated that China will reduce tariffs on steel imports from the current overall average of 10.3 percent to 6.1 percent, with many of the largest individual tariff line reductions involving specialty steel products. Currently, nominal tariff rates range from 3 percent to 15 percent for carbon steel products and from 2 percent to 22 percent for stainless steel. Reductions will commence upon China's accession and will be completed by January 1, 2003.

### **Nontariff Barriers**

The current situation concerning traditional nontariff measures and the extent to which they remain in effect is not as clear. What is certain is that many of these practices will have to be phased out before China joins the WTO.

**Licensing and Quota Systems.** The Ministry of Foreign Trade and Economic Cooperation (MOFTEC) has asserted that the old licensing and quota system has been abolished and that no such measures are currently being used to restrict steel imports. However, evidence suggests that these systems persist.

Media reports and interviews with various importers, including both trading companies and steel consumers, suggest that the licensing system remains in place.<sup>71</sup> An often-told story from 1999 is of a shipment of Japanese high-end steel that sat on the dock for weeks because no one had an import license with which to claim it. These licenses are often acquired by companies not in the business of importing steel, who then trade them with would-be importers for a profit.<sup>72</sup>

In addition, ample anecdotal evidence and various reports indicate the existence of a steel import quota. There are reports of an import target of 10 million MT that the government set for this year,<sup>73</sup> and of an outright ban on imports of thirty-five specific steel products that are currently produced in China.<sup>74</sup> By some accounts, the government maintains an explicit import quota on steel by means of an import registration system. According to interview sources, steel is a “specially named or designated commodity” that must be registered for import. Companies wishing to import such commodities must bargain with the municipal government each year for the total volume they want to import. The municipal government, in turn, gets its own aggregate quota allotment from MOFTEC.<sup>75</sup>

MOFTEC described the import registration system as a transition measure to full trade liberalization after China joins the WTO. According to MOFTEC, the newly implemented import registration system took the place of the old quota and licensing system. MOFTEC further explained that the new system functions merely as a monitoring mechanism. However, MOFTEC conceded that the registration system is designed to stop steel imports from becoming, in its view, “excessive.” A representative from MOFTEC could not identify a specific level of imports that would be deemed excessive, however.<sup>76</sup>

It is anticipated that China’s WTO commitments will include the elimination of various nontariff barriers, including import substitution measures, import quotas and nonautomatic import licensing and import registration requirements.

**Import Trading Rights.** The situation concerning the nature and extent of explicit import quotas is further complicated by China’s import trading rights regime. Importing steel into China is not, in general, a business activity in which firms and individuals can freely engage. Instead, the government limits the right to engage in such trade to approximately 170 designated traders. These designated trading companies engage in what the Chinese refer to as general trade in steel, *i.e.*, importing steel that is not subsequently re-exported after further processing or manufacturing. A separate group of designated trading companies engages in processing trade, *i.e.*, importing steel for re-export after further processing. According to MOFTEC, the value-added tax (VAT) rebate on exports requires separation of the two types of trade.<sup>77</sup>

Restricting import trading rights to designated traders does not, in principle, limit the volume of steel imports into China, particularly since there are 170 such traders. In practice, however, there are serious concerns with actual and potential limits on imports. Full liberalization of trading rights is something that WTO members are focusing on as a condition of China’s accession to the WTO. To the extent that China’s restriction of trading rights in steel effectively limits imports, it functions as an implicit quota.

It is anticipated that after a short phase-out period—the exact length of which has not yet been determined—China will commit to eliminate designated state trading in the steel industry. When this phase-out period expires, all domestic and foreign companies will have the right to import and export steel products.

**Security Deposits.** According to the *Nikkei Weekly*, since October 1999, foreign manufacturers in China that import for processing and re-export must post large security deposits to ensure duty-free treatment of their raw material imports. The *Nikkei Weekly* further reports that “the system is designed to protect state-owned manufacturers mostly in the steel and chemicals industries from their competitors.”<sup>78</sup>

**Import Substitution Program.** China, like other countries, is also concerned about maintaining the price competitiveness of domestically produced steel inputs vis-à-vis imports. In 1998, China implemented the Steel Import Substitution Program (SISP), which sets import substitution targets for China's largest steel producers. The SISP is designed to stimulate domestic production capability at the high end of the steel market, e.g., stainless steel and cold-rolled sheet for automotive applications. The industrywide substitution target for 1999 was 3 million MT.<sup>79</sup>

Under the SISP, steel producers receive a rebate of the 17 percent VAT on sales to steel users who produce for export and who would otherwise import to meet their needs. The SISP effectively lowers by the amount of the VAT rebate the price that these steel producers can charge for their steel.<sup>80</sup> The rebate appears to be working as intended, as twelve of the 27 steel producers that signed import substitution contracts—including Baoshan, Wuhan, Shougang, and Anshan—exceeded their targets. The industrywide target for 2000 under the SISP is thought to be 3 million MT.<sup>81</sup> Baoshan remains the primary investment vehicle for producing import substitutes under the government's broad steel import substitution policy. Consistent with that fact, Baoshan had a 1999 import substitution target under the SISP of 1.3 million MT—three times as great as the next largest, Wuhan's 400,000 MT target.<sup>82</sup>

**Subsidies Disciplines.** China is expected to be subject to strong subsidy disciplines under the WTO Agreement on Subsidies and Countervailing Measures, including the immediate elimination of export subsidies and import substitution subsidies and certain additional disciplines that take into account the special characteristics of China's economy and, in particular, of its state-owned enterprises. As a WTO member, China will not be precluded from continuing to provide government support to Baoshan, Anshan, Wuhan, and Shougang for technological upgrading and transformation, although this effort will be subject to discipline through the enforcement of U.S. rights under the Agreement on Subsidies and Countervailing Measures.

**Prohibition on Foreign Distributors.** It is anticipated that China will commit to eliminate, after a short phase-out period, its prohibition on foreign companies distributing imported steel products in China or providing related distribution services. When this phase-out period ends, foreign companies will be permitted to engage in a full range of distribution services.

**Added Protections Against Dumping.** It is not clear when the Chinese steel industry will shift its focus to the development of export markets, but when it does, the terms of China's WTO accession should provide the United States with the means to safeguard the U.S. steel industry from unfair trade. In addition to enforcing subsidy disciplines under the Agreement on Subsidies and Countervailing Measures (including the prohibition on export and import substitution subsidies) the United States will be able to use its current nonmarket economy methodology in antidumping proceedings for fifteen years after China's accession. The United States will also be able to use a strong product-specific safeguard to address import surges for twelve years after China's accession.

## **Assessment of Export Potential**

Although the export potential of China's steel industry is not what the size of the industry might suggest, it is nevertheless a concern because of the government's firm commitment to steel as a strategic industry and involvement in investment planning. It is likely that Baoshan will be an internationally competitive exporter of high-end products in the near future. While Chinese government representatives and private industry analysts expect Baoshan to become an internationally competitive exporter in the next two to three years, traders and steel consumers expect Baoshan to reach this level much sooner. Although some of Baoshan's most demanding customers express concern with its quality control, less technically demanding consumers are concerned only with the fact that

Baoshan is not equipped to provide various types of product coatings. While this assessment does not take into account the financial burden on Baoshan of having recently absorbed several unprofitable Shanghai steel firms, it does give some indication of the potential world-class efficiency of the company.

Other producers like Wuhan do not yet have Baoshan's export potential. However, these companies have invested significantly in high-end production lines. Many steel consumers believe that it is merely a matter of time before these companies perfect the use of the technology and are producing internationally competitive products. The average time frame assumed for these runner-up Chinese steel producers is three to five years. Some steel consumers believe that if Baoshan makes the jump, other steel producers in China will need less time to catch up, following the Baoshan model.

The Administration expects China's WTO membership and ongoing reform efforts to result in reciprocal trade in steel that, from a supply perspective, is fully consistent with commercial considerations. If that is not the case, a larger amount of China's steel production may find its way into overseas markets, particularly if China finds itself less isolated from macroeconomic shocks and market destabilizing forces than it was during the 1997–1998 Asian financial crisis.

## **The Ukrainian Steel Industry**

The Ukrainian steel industry has a number of impediments to its international competitiveness. Both domestic consumption and shipments to its leading foreign customer, Russia, have plummeted. Most of its steel production continues to be based on outdated, inefficient technology. It suffers from high input costs, particularly for energy. And it has failed to enact a serious program of privatization thereby losing access to much needed investment, innovation and management know-how.

Despite these difficulties, Ukrainian steel producers have set their sights on exports as never before, raising a number of concerns for the U.S. steel industry. In its strong support of the steel industry, the Ukrainian government has taken several measures:

- Designating the steel industry a national champion and looking to it to generate hard currency and drive economic development. To guarantee steel's future, the government has maintained production levels and implemented a modernization program to upgrade the capital stock of targeted producers.
- Tolerating market distorting practices that have kept uncompetitive, state-controlled steel companies from closing. These include continued use of barter and bankruptcy protection.
- Dispensing to Ukrainian steel companies a range of government assistance including: reduced or exempted taxes, forgiveness of debts and preferential interest rates.

In addition, a U.S. trade case against Ukraine could indicate an attempt to replace Russian steel imports halted by U.S. antidumping actions during the U.S. steel crisis. The case, involving cut-to-length plate, resulted in relief for U.S. steel producers in the form of a quota arrangement.

### **Profile of the Ukrainian Steel Sector**

In 1999, Ukraine ranked as the eighth largest steel producing country in the world and generated over 27 million MT of crude steel.<sup>83</sup> Steel production in 1998 amounted to 23 percent of Ukraine's total industrial output. In contrast, during the same year, steel in Russia comprised only 4.1 percent of total industrial production.<sup>84</sup> Considering that steel in Ukraine accounts for a larger share of GDP than in any other former Soviet Republic, the Ukrainian government has placed great emphasis on utilizing the steel industry as a key component of future economic development.<sup>85</sup>

## Ukraine's Big Four

More than half of Ukraine's total annual crude steel productive capacity is concentrated in its four largest integrated steel mills. Kryvorizhstal has annual capacity of 10.6 million MT, or almost one-fifth of Ukraine's total steel capacity; Mariupol's annual capacity is 7.2 million MT; Azovstal's annual capacity is 7 million MT; and Zaporozhstal's annual capacity is 4.8 million MT.<sup>86</sup>

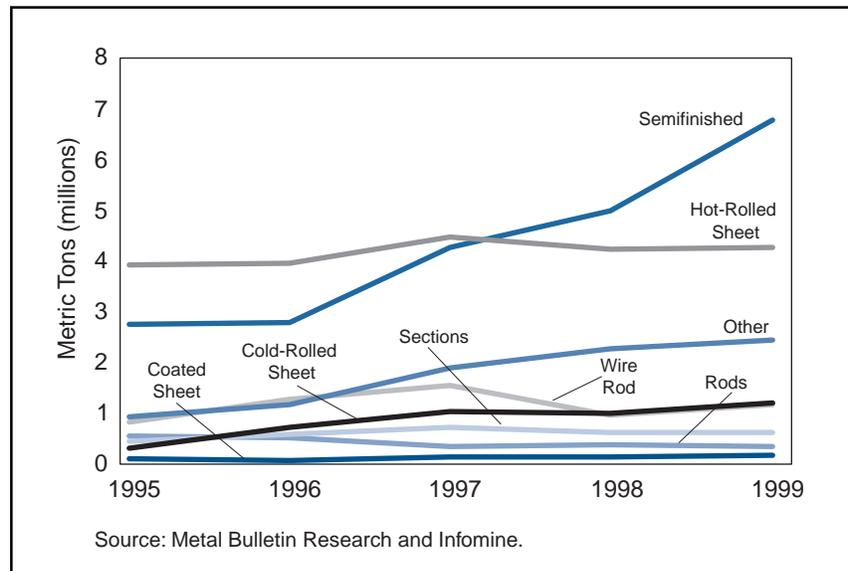
## Some Advantages

These mills benefit from a number of historic advantages that have helped the industry maintain a respectable presence. The steel industry's raw material sources are well developed, and many mines are close to the steel mills themselves. Ukraine is rich in iron ore deposits and other critical raw steelmaking materials.<sup>87</sup> Ukraine's largest mills are well-positioned for export, with easy access to the Black Sea.<sup>88</sup> And Ukrainian steel workers are well-trained, and the country's labor rates are low.<sup>89</sup>

## Role of Exports

Steel exports now account for 40 percent of the country's exports and hard currency earnings.<sup>90</sup> In the last few years, Ukraine has exported well over 60 percent of total finished steel output. With the exception of Russia, Ukraine now ranks as the largest steel exporter among the former Soviet Republics. There is little doubt that the Ukrainian government will continue to give steel exports a key role in Ukraine's economic development and will look to exports as a vehicle for generating badly needed hard currency.

Exports of finished steel products peaked in 1997 at 12.1 million MT before slipping back slightly to 11.9 million MT in 1998 as a result of trade actions against Ukraine.<sup>91</sup> Ukraine's flat-rolled steel exports have increased significantly and totaled nearly 14 million MT during the period 1997–1998. Ukraine's exports largely consist of hot-rolled steel and semi-finished products (*Chart 6-6*), the bulk of which are exported to Asia and the Near East.<sup>92</sup> Ukraine's largest customers for hot- and cold-rolled steel include China and Turkey (*Charts 6-7 and 6-8*) and for wire rod, they include China, Turkey, and Russia.



6-6. Ukrainian Steel Exports by Main Product Group (1995–1999)

## Declining Domestic Consumption and Exports to Russia

The Ukrainian government's heightened attention to exports has been driven by a dramatic drop in domestic consumption and the collapse of demand from its most important foreign customer, Russia.

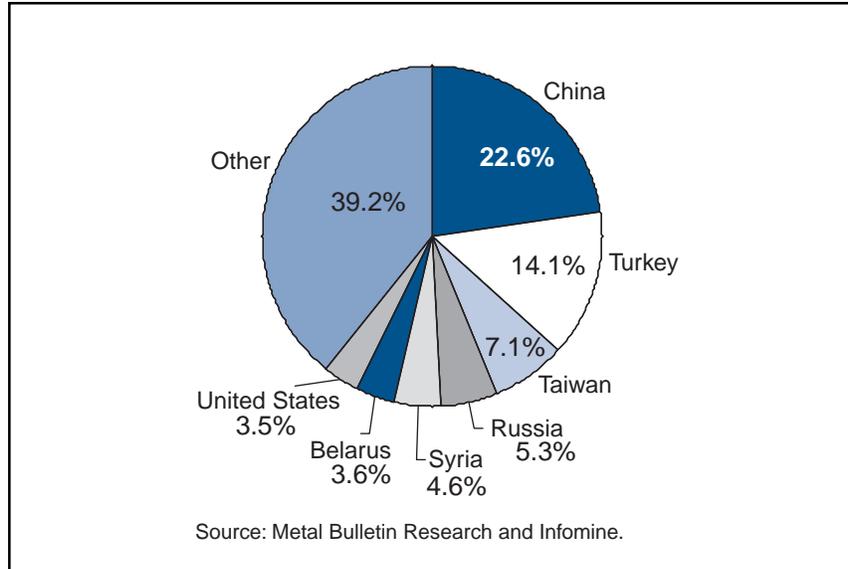
## Domestic Consumption

In 1998, Ukraine's apparent steel consumption was a mere 31 percent of its 1992 level, having declined most significantly between 1995 and 1998.<sup>93</sup> This decline, coupled with a corresponding drop in Russian demand for Ukrainian steel, led Ukraine's steel industry to look globally for new markets.<sup>94</sup> To some extent, increased trade is part of the broader process of economic transformation. Expanding export markets is important for Ukraine's steel industry.

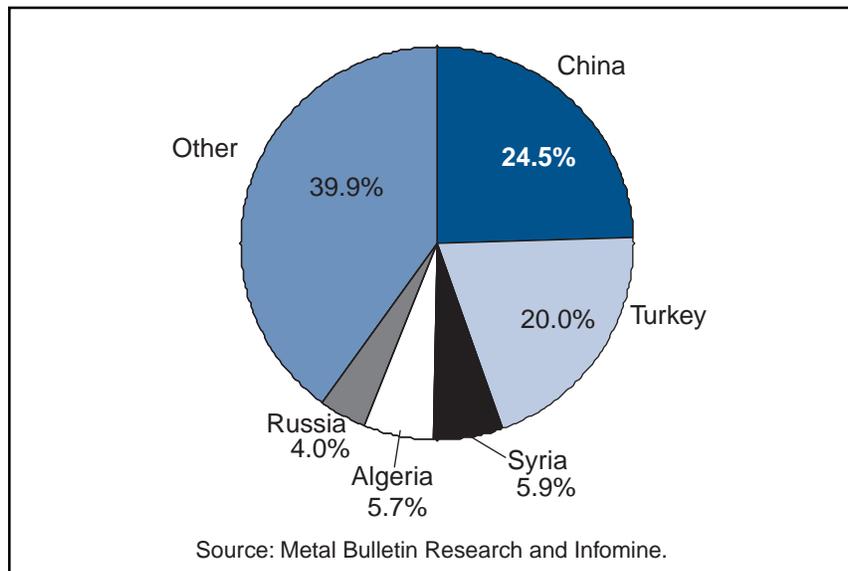
Ukraine's domestic consumption of rolled steel fell from 7.5 million MT in 1995 to just 3 million MT in 1999.

The decline in domestic steel consumption was prompted by a severe downturn in the Ukrainian economy, which was mirrored throughout the former Soviet Union. Since 1991, Ukraine has been in a protracted economic slump, and stagnating reform efforts have worsened the situation. Although considerable progress has been made in recent years, Ukrainian economic reforms lag behind other countries transforming their economies. The private sector remains in an embryonic form, except for some notable exceptions.<sup>95</sup>

The 1998 Russia crisis exacerbated an already strained economic situation and damaged Ukraine's traditional export markets. The Russia crisis, Ukraine's economic over reliance on Russia, and stagnating domestic reforms made the situation worse, leading to a further decline in the country's GDP and a 35 percent nominal depreciation of the Ukrainian currency, the hryvna.<sup>96,97,98</sup>



6-7. 1998 Hot-Rolled Steel Exports by Destination, Ukraine



6-8. 1998 Cold-Rolled Steel Exports by Destination, Ukraine

## Russian Trade

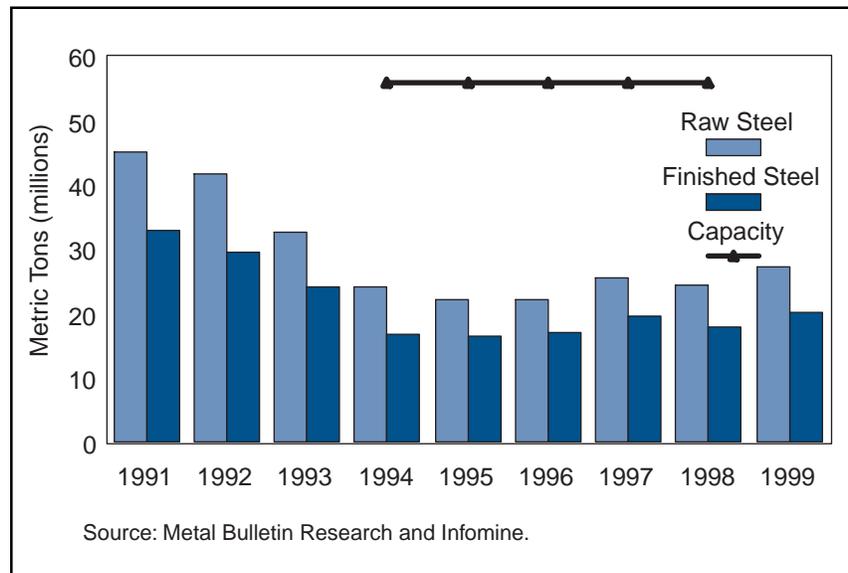
Ukraine's steel sector had always been able to rely on Russia as an outlet. Historically, Ukrainian steel mills were a primary raw material source for the Soviet Union's tanks, machines and construction projects.

After the Soviet Union's dissolution, Ukraine continued to supply key products to Russia's military-industrial complex led by steel products including heavy machinery and chemicals. In 1994, Ukraine's steel exports to Russia remained strong with exports totaling 1.1 million MT of semifinished and finished products. By 1998, exports to Russia had dropped dramatically to just over 700,000 MT.<sup>99</sup>

### Effects on Capacity Utilization and Production

Falling domestic consumption and the collapse of Russian demand had a severe impact on Ukraine's capacity utilization and production levels throughout the 1990s:

- **Capacity.** By 1998, Ukraine's annual crude steel capacity was close to 56 million MT, yet actual output was only half that. In 1999, capacity utilization increased slightly, to 57 percent.
- **Production.** Annual raw steel output dropped dramatically from 45 million MT in the early 1990s to 22 million MT in 1995 and 1996. Annual finished steel output dropped from 30 million MT in 1991 to 16–17 million MT per year between 1994 and 1996. Annual finished steel output has increased slightly to 18–19 million MT in the last few years<sup>100</sup> (Chart 6-9).



6-9. Ukrainian Raw and Finished Steel Output

### Competitiveness Issues

Ukraine faces considerable challenges as it seeks to sustain its steel industry in the face of lost domestic and Russian demand. Since the breakup of the Soviet Union, Ukraine's steel industry has been plagued by bad credit, an acute shortage of working capital, low productivity and rapidly increasing debt. Ukrainian steel producers have been slow to make significant labor force reductions and have not been effective in replacing obsolete or worn-out equipment.

### Outmoded Technology

Perhaps its single greatest challenge is outdated equipment and processes. Despite its geographic and labor advantages, Ukraine's steelmaking technology, in general, is decades behind that of most other major steel producing countries. As a result, steel companies have not been able to reap maximum cost benefit from the country's relatively strong raw material sector.

Antiquated steelmaking technology and manufacturing processes include inefficient open-hearth furnaces and limited continuous casting capability which require far more electricity and labor than other methods. Open hearth furnace technology accounts for nearly 55 percent of its steel output. A mere 34 percent of output in 1998 was generated from comparatively efficient basic oxygen furnaces, and less than 2 percent of total crude steel output was generated using electric arc furnace technology.<sup>101</sup> Only

two firms, Enakievo and Konstantinovskiy, have managed to move completely away from open-hearth furnace technology.

While Ukraine's steel sector has worked to implement continuous casting technology, it still accounts for only 18 percent of total production.<sup>102</sup> Without this technology, the steel industry will continue to need an oversized labor force.<sup>103</sup>

**Productivity.** The negative effect on productivity has been profound. In 1997, Ukraine's steel industry employed 480,000 workers,<sup>104</sup> more than double the number of steel workers currently employed in the United States. Even with this sizable labor force, Ukraine's crude steel output is less than one-third of total U.S. annual crude steel production. Brazil, with annual crude steel production almost identical to that of Ukraine, employed an active workforce of 63,000<sup>105</sup> in 1998.

**Product Mix.** The general lack of modern equipment has constrained the steel industry's ability to replace its semifinished exports with adequate quantities of higher value added products, including carbon plate and hot- and cold-rolled steel, that meet international quality standards. Most Ukrainian mills remain heavily oriented toward the production of low-quality long products, with only two mills producing strictly higher-value-added flat products.

### **High Energy Costs**

While technology has hit Ukrainian steel on the output side, energy costs have hit it on the input side. Until 1994, the Ukrainian government supported steel companies by providing significant electricity subsidies.<sup>106</sup> With the election of President Kuchma that year, the state opted to begin phasing out electricity subsidies in order to force companies to improve efficiency. Electricity costs for the steel industry have subsequently increased.<sup>107</sup> A typical Ukrainian steel mill is burdened by a high cost of production.<sup>108</sup>

Historically, the Ukrainian steel industry has depended heavily on Russian energy inputs. Ukraine currently owes Russia roughly \$1.5 billion for natural gas and has been known to "appropriate" for its own use Russian-origin natural gas destined for Europe that flows through Ukrainian pipelines.<sup>109</sup> This has led Russia to impose stricter conditions on natural gas supplies to Ukraine and has driven energy prices even higher. High energy costs have resulted in growing indebtedness to suppliers of electricity and natural gas.

### **Ukraine Sticks With State Ownership**

Despite the Ukrainian steel industry's deeply rooted technological, product mix and structural problems, the Ukrainian government has not yet turned to large-scale privatization as a way to jump-start the restructuring of its steel sector. After a promising start on the path to privatization and restructuring in 1996, the Ukrainian government quickly became protective of its steel sector and has since been reluctant to loosen its grip on the industry. Only one steel company is effectively privatized; the rest remain government-run.

### **Privatization Stalls in the Steel Sector**

The Ukrainian government has, generally, looked to privatization as a way to stimulate economic reform.<sup>110</sup> Initially, the privatization process seemed to progress smoothly. The European Union's Technical Assistance Program for the Commonwealth of Independent States reports that by September 1999, Ukraine had managed to privatize 8,500 of a total of 10,000 medium-sized and large state-owned enterprises. This effort resulted in the privatization of 70 percent of the capital of these firms.<sup>111</sup>

Ukraine's steel industry is a different story altogether. The Ukrainian State Property Fund (SPF), the agency charged with monitoring, regulating and implementing privatization efforts, has favored

privatization of companies that are not considered to be of strategic importance, but it has had little interest in privatizing large industrial sectors such as steel and other industries with potential military application.<sup>112</sup>

In Ukraine, only the Donetsk Iron and Steel Works (Donetsk) has been privatized to the extent that government ownership has fallen below a majority controlling share.<sup>113</sup> In 1996 the SPF handed over 40 percent of Donetsk to ordinary citizens, with the government retaining 20 percent.<sup>114</sup> The SPF then went a step further and offered the remaining 40 percent to an investor who was willing to meet the requirements of SPF's noncommercial tender: a modernization plan and the funding to carry it out.<sup>115</sup> Overall, the Donetsk privatization experience has been a success (*see box*).<sup>116</sup>

### ***Example of Successful Privatization***

Hope for Donetsk Iron and Steel Works came from a Hong Kong-based steel manufacturer and trader that was already managing Donetsk, British MetalsRussia Ltd. Since the acquisition, MetalsRussia has invested \$9 million in equipment and \$17 million in operating capital. In addition to these funds, which partly have gone to the installation of modern equipment (including a new continuous casting machine, a furnace-ladle machine, an automatic weigher, a water treatment unit, and updated laboratory equipment) the new management has focused on business strategy, such as identifying appropriate markets, reducing energy costs, and producing quality products. Donetsk produces semifinished products (billets and slabs), structural shapes and sections, and hot-rolled and cut-to-length plate. The company claimed a profit in 1997, but was not able to escape losses in 1998, due mostly to the shrinking of its export markets.

Despite these positive signs, the Ukrainian government put a five-year hold in 1999 on the proposed sale of the controlling share of eleven steel and coal-tar chemical plants. These plants, including Azovstal, Mariupol and Dnepropetrovsky, three of Ukraine's major steel producers, remain entirely under state control. While minority shares of certain steel companies have been sold to private investors including citizens and workers, the government has been reluctant to enter into final sales agreements and continues to retain control over all but Donetsk. The Ukrainian government exercises control over steel companies by requiring that Ukraine's cabinet consult with parliament in selling off strategic and large state-owned companies to private investors.<sup>117</sup> One expert has noted that the Ukrainian government looks at privatization as "just a way of

repairing the budget loopholes," despite Western pressure to use privatization proceeds to promote institutional reform in its industrial sectors.<sup>118</sup> To the extent that privatization is favored, it has often been used as a quick fix in paying off wages and pension arrears.<sup>119</sup>

## **Consequences of Retaining State-Owned Industry**

Retaining control of the steel industry will only serve to reinforce existing problems in the steel industry:

- Because steel companies remain primarily state-run, many steel firms in Ukraine are missing out on badly needed infusions of capital as banks and other profit-oriented enterprises have set their sights on private-sector investments elsewhere.<sup>120</sup>
- Lacking private management expertise, the steel sector will continue to struggle to implement western accounting practices. Ukraine's state-owned industrial giants, including steel companies, still appear to set prices for industrial exports with little regard for actual production costs and real market conditions.

## **Market Distortions**

Continued state ownership of the steel industry also means that structural problems will undermine any efforts by the industry to modernize.

- **Barter.** Ukrainian steel companies have relied in part on a barter system that allows them to trade steel products indirectly for energy and raw material inputs. Elaborate bartering schemes have driven up costs and increased company debt. One barter scheme, described in the *Kiev Post*, reports that “by selling at a loss, companies such as Kryvorizhstal cannot pay for inputs in hard currency and become particularly dependent on energy suppliers, which they usually pay in barter. Suppliers can overvalue the price of the inputs they provide to government enterprises and reap handsome rewards with the commodities they earn in exchange.”<sup>121</sup>
- **No Bankruptcies.** Ukraine’s government has not allowed steel companies to go bankrupt. Failing steel firms are simply shouldered by the Ukrainian taxpayer, and bankruptcy remains a concept that only applies to privately owned companies.

## U.S. Trade Cases

These structural problems, coupled with steep and prolonged declines in domestic and Russian demand, have increasingly led Ukraine steel producers to export. Since 1993, Ukraine has exported steel in increasing volumes to the United States, including semifinished products, hot-rolled steel and cut-to-length plate. From 1992 to 1996, Ukrainian steel exports of cut-to-length plate to the United States rose dramatically. As a result, the U.S. industry filed an antidumping case against cut-to-length plate from Ukraine. A quota agreement settled the case and resulted in an immediate drop in exports.

## Steel Industry Restructuring

Since the antidumping case was filed, the Ukraine government has continued with its steel industry restructuring plan. With privatization taking a back seat role at best, the Ukrainian government has actively moved the industry’s modernization effort forward. Structural challenges within the industry and the collapse in domestic and regional demand have forced the government to look hard at how to effectively modernize its steel industry. In the next decade, a handful of Ukraine’s best mills will be the focus of the government’s effort to build a profitable and internationally competitive steel industry.<sup>122</sup> With the government’s backing, the steel sector will attempt to reduce overall production capacity, upgrade steelmaking and rolling technology and establish itself as an export-oriented industrial engine that can drive Ukraine’s domestic economic growth.

## Modernization and the 2010 Plan for Steel

In 1998, industry analysts predicted that approximately 10–12 million MT of surplus steel would float in the world market and urged Ukrainian steel companies to throw more resources toward the production of higher value-added steel for which there was rapidly growing demand.<sup>123</sup> The government responded in 1997 and 1998, by spending 2.5 billion hryvna (approximately \$800 million) on the reconstruction of the mining and steel sectors. This included the commissioning of two wire mills and several ladle furnaces.

A new program has now been put in place to modernize the overall steel sector by 2010.<sup>124</sup> This program seeks to reduce overall capacity and increase productivity at a number of steel plants, including two of Ukraine’s top four firms. In the next five years, the program aims to shut down four small blast furnaces with annual capacity of 3.3 million MT, fifteen open-hearth furnaces with annual capacity of 5.5 million MT and three outdated rolling mills with annual capacity of 1.5 million MT. From 2006 to 2010, the plan calls for shutting down an additional blast furnace, two open-hearth furnaces and four blooming mills with annual capacity of 14.5 million MT. The government estimates the total cost of this project at somewhere between \$1 billion and 1.5 billion.<sup>125</sup>

## Increase in Government Assistance

Because the Ukrainian government has maintained effective control over its steel industry, it is likely to continue to prop up struggling steel firms. Absent private investment, industry will continue to have no

choice but to look to various government programs, including low-interest loans, preferential tariffs and tax breaks, in order to stay afloat. This assistance, coupled with the existing distortions in the Ukraine steel sector, increases the likelihood of unfairly traded exports.

In July 1999, the Ukrainian Rada passed a law (a so-called “economic experiment”) that aims to aid steel and mining companies to “increase their working capital for upgrading their production facilities and to avoid barter transactions in the purchase of critical supplies (gas and energy resources).”<sup>126</sup> The law covers seven of Ukraine’s fifteen integrated steel makers and grants numerous rights to metal and mining companies:

- A 70 percent reduction on profit taxes.
- A 50 percent reduction on the innovation tax.
- Exemptions from state budget debts predating July 1, 1999.
- The right to postpone payments to the state budget for a period of three years.<sup>127</sup>

In 1999, the Ukrainian government also passed a resolution exempting the largest steel producer, Kryvorizhstal, from the payment of taxes and forgiving its extensive debts to the state.<sup>128</sup> In exchange, the government noted that “the enterprise must submit to a government-mandated restructuring program, which will involve transferring its ‘non-industrial’ holdings to the Kryvy Rih municipal authorities.”<sup>129</sup> It is unclear whether the case of Kryvorizhstal is one more instance of government intervention or rather the first steps toward much-needed restructuring, including the divestiture of social functions of the enterprise.

## **An Assessment**

The Ukrainian steel industry is impressive in size but survives in its current form only as a result of the government’s willingness to prop up struggling firms, to prevent companies from entering bankruptcy and to keep private investors outside the gates of Ukraine’s best steel companies. Ukraine’s steel industry will likely continue to survive in an outdated and inefficient form as the government dispenses tax privileges, preferential tariffs and duties and debt forgiveness.

Steel exports will undoubtedly continue to flow from Ukraine, given the country’s capacity for steel production, stagnant domestic demand and the fact that its best steel firms have already established themselves with overseas customers. The Ukrainian government appears committed to a thorough rebuilding of the top tier of its steel industry. If the modernization plan remains on track, a handful of Ukraine’s best steel companies will be well positioned to compete in international steel markets. Although Ukraine has not exported substantial volumes of finished steel to the United States, the steel industry is beginning to lay claim to a share of the U.S. market. Total U.S. imports of steel mill products from Ukraine during the first four months of 2000 were more than ten times higher than the same period in 1999.<sup>130</sup> This dramatic increase can be partially attributed to rising imports of hot-rolled steel<sup>131</sup> as Ukrainian producers attempt to fill a gap left by Russian producers constrained by U.S. trade actions. With the Ukrainian government paving the way for its steel sector, there is reason to be concerned about the potential for unfair trade.

## **The Indian Steel Industry**

All of India’s social, political and economic complexities are reflected in its steel industry. For many years, these complexities were of little concern to global steel trade because the Indian government was intent on meeting domestic demand, rather than on promoting exports. With forecasts for booming domestic demand in the 1990s, the government promoted an aggressive expansion of steel production. When domestic demand faltered in the late 1990s, the Indian steel sector was left with unused capacity and massive investments in the pipeline. Rather than let the market rationalize capacity, the government stepped in to prop up the industry. This had the effect of pressuring steel producers to export.

Today India is the world's tenth largest steel producer.<sup>132</sup> With more Indian steel companies expected to enter the global steel market, the role played by the Indian government is now a matter of serious consideration. Of particular concern are market distorting practices, including various forms of government assistance, import barriers, and export subsidies:

- **Government Assistance.** Mechanisms used by the government to promote investments in steel production or to prop up teetering enterprises include government loans, loan guarantees for private sector loans, debt writeoffs, and tax breaks.
- **Import Barriers.** Indian steel producers have long enjoyed the protection of high tariffs on steel imports, currently averaging about 25–30 percent, and they have benefitted from the cumbersome customs procedures with which importers must contend. When faced with growing imports and falling prices in the late 1990s, the Indian government heeded steel industry calls for protection by taking additional steps, including setting minimum floor prices for imports and adding a 10 percent surcharge on top of the basic import duty. The Administration is currently reviewing whether India's floor prices are consistent with the WTO Agreement.
- **Export Subsidies.** Export subsidies, which have been used by India for many years, take on a greater significance given the industry's new emphasis on exports. Top exporters receive a voucher for 10 percent of the value of their exports and are eligible for reduced duty rates for importing capital goods. Exporters can also use a passback scheme to avoid paying duties on inputs. Other inducements include licensing, duty and export financing subsidies.

With continued government assistance and protection of the domestic industry, the potential exists for trade-distorting practices to lead to unfairly traded Indian steel exports.

## Industry Profile and Development

Long considered one of India's public sector industries destined for greatness (the so-called nine jewels), India's steel industry was fostered in a highly protected and controlled environment. The climate in which the industry grew was characterized by high import tariffs, government assistance, government control over prices and distribution and state allocation of resources. New investments in capacity were carried out with direct government funding. A protected domestic market and seemingly endless government support bolstered domestic production with little incentive to maximize profits.<sup>133</sup>

### Era of Government-Controlled Steel Production

From 1948 to 1990, production of crude steel grew an average 6.1 percent per year.<sup>134</sup> During this time, India became dependent on the industry not only for steel supply, but for employment and the other social benefits associated with job creation, *e.g.*, schools, medical care and infrastructure. The industry, meanwhile, became dependent on the regulated environment and lack of competition. All steel capacity was created through public sector units and was used largely by other public sector units in infrastructure and industrial developments (*see box, next page*).<sup>135</sup> Under the controlled economy, efficiency and quality were not priorities. Growth in steel production under government control was slow vis-à-vis other developing countries, such as China. Per capita consumption of steel in India remained among the lowest in the world, increasing from 5 kg in 1950 to only 24 kg in 1998, against a world average of 140 kg.<sup>136</sup>

### Deregulation and Rapid Growth

In 1991, as part of the government's economic liberalization program, the steel industry was largely deregulated. Price and distribution controls and restrictions on trade were abandoned. The removal of licensing restrictions permitted unfettered investments in new steel plants by the private sector, and import

### ***Publicly Owned Steel Companies***

While there are now several private steel companies in India, the largest steel company by far is the government-owned Steel Authority of India Limited (SAIL). SAIL had a crude steel production capacity of about 10.6 million MT in FY 1997–1998 and employed more than 175,000 people. SAIL's main strength is its 65 percent market share of domestic hot-rolled production. The emergence of new players in this sector will likely increase competition for hot-rolled steel.

Since liberalization in 1991, SAIL has invested heavily in modernizing its plants, leaving it with a very high debt burden—about three times equity. The recent government debt writeoff should reduce that burden to about two to one. In addition, SAIL's decision making process is slow and suffers from significant bureaucracy in the Ministry of Steel.

duties were reduced. The government expected its economic reforms to produce rapid and sustained economic growth. This growth, in turn, was projected to drive steel demand to more than 32 million MT by 2000.<sup>137</sup> The government developed a strategy for expanding the country's steel production to meet and exceed this forecast.<sup>138</sup> Long-term lending institutions, such as the Industrial Development Bank of India, were encouraged to extend financing for new steel capacity in the private sector, and for modernization and expansion of existing public sector plants.<sup>139</sup> Under these expectations of rapid economic growth, massive investments were made in new steel capacity and in modernization of existing facilities (*see box below*).<sup>140</sup> According to the Ministry of Steel, nineteen new steel projects, many of them greenfield plants, were sanctioned after the industry was deregulated.<sup>141</sup>

In the first few years following liberalization, the economy boomed and the steel industry responded favorably to the newly deregulated environment. Apparent domestic consumption of finished steel products grew by almost 6 million MT between 1994 and 1996, (by 22 percent in 1995 and 14 percent in 1996).<sup>142</sup> Consumption and production of finished steel grew in step, both reaching 21 million MT by 1996.<sup>143</sup>

### **Domestic Steel Demand Screeches to a Halt**

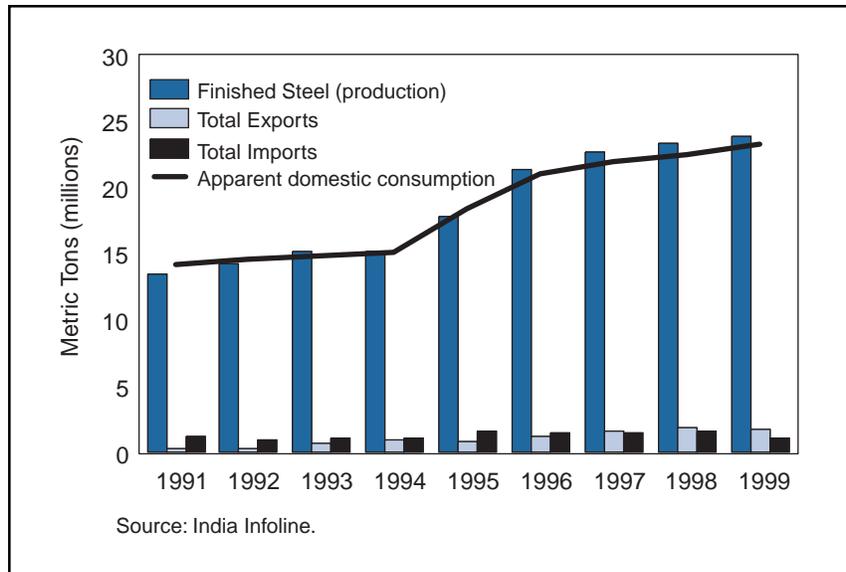
By the mid 1990s, it was clear that the government's demand projections had been overly optimistic. By FY 1996–1997, the industry was stuck in a cyclical downturn; demand for steel stagnated as growth

### ***Privately Owned Steel Producers***

TISCO is India's second largest steel producer (after SAIL) and largest private-sector steel company, with a total capacity in FY 1998–1999 of about 3.1 million MT. Along with SAIL, it enjoyed growth in a completely regulated steel market prior to 1991. TISCO is considered to be very well managed and, unlike SAIL, has very good labor relations. Early in the 1990s, it began modernizing its production facilities, replacing all open-hearth furnaces with more efficient basic oxygen furnace technology. TISCO has responded to the emergence of new, more efficient producers such as Jindal, Essar and Ispat by further improving its plants, and strengthening its marketing and distribution network. TISCO is also focusing on moving its product mix toward flat products which have higher profit margins, and on exports to improve sales growth. With plans to complete a new 1.2 million MT cold rolling mill in 2002, TISCO executives are confident that their company will become one of the most efficient steel producers in the world.

In addition, there are thousands of smaller, privately owned producers—*i.e.*, small to medium-sized induction and electric arc furnace producers, pig and sponge iron units, rerollers, and stand-alone cold rollers and galvanizers. Having previously relied on protection in the regulated market, many secondary producers have closed since 1991. The survivors, particularly those using electric arc furnaces, face high power costs, uneven quality and limited availability of scrap.

among steel-intensive sectors, such as consumer durables and capital goods, declined. Moreover, as India's fiscal deficit grew, the government drastically reduced spending on infrastructure and other public projects, further weakening domestic demand for steel.<sup>144</sup> By FY 1998–1999, apparent consumption of finished steel had reached just under 24 million MT<sup>145</sup> (Chart 6-10), 8 million MT shy of the government's projections, while domestic capacity had increased to more than 32 million MT.

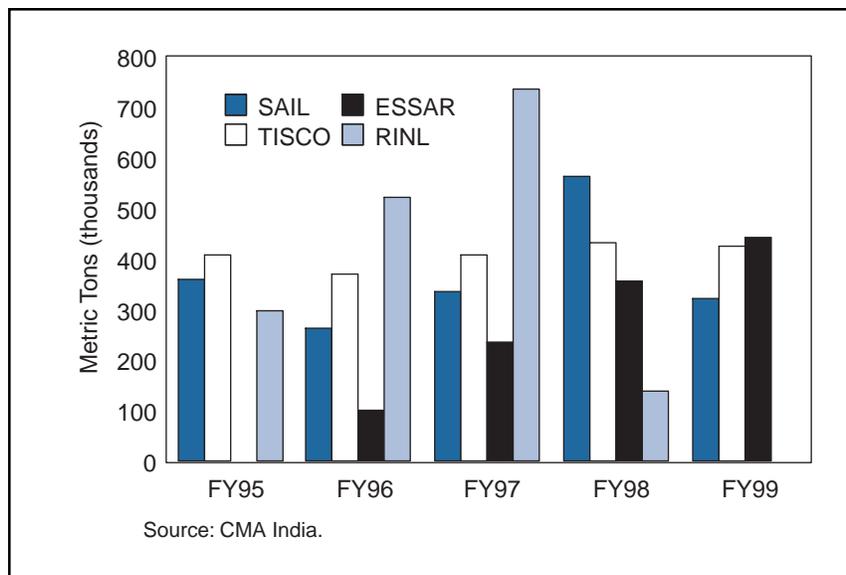


6-10. Indian Finished Steel, All Products

### Impact of the Asian Financial Crisis

The Asian financial crisis further exacerbated the industry's problems.

**Domestic Steel Prices.** Low-cost imports (mostly from Russia and the other former Soviet Republics) significantly depressed domestic prices. While it does not appear that a large quantity of imports entered India, steel consumers could pressure domestic producers into lowering prices. Indian steel makers that competed against imports from Russia and other former Soviet Republics faced foreign prices as low as \$180 per MT.<sup>146</sup> Domestic prices for hot-rolled coil dropped from a high of more than \$330 per MT to less than \$195 per MT over the course of 1998.<sup>147</sup> Prices of most domestic steel products declined precipitously in 1998, eliminating the profit margins of domestic producers.<sup>148</sup>



6-11. Exports of India's Major Producers

**Declining Exports.** Indian producers also faced a loss of demand abroad, particularly in the southeast Asian markets on which Indian steel producers had depended. India's total steel exports to the region fell by 25 percent from FY 1996–1997 to FY 1997–1998.<sup>149</sup>

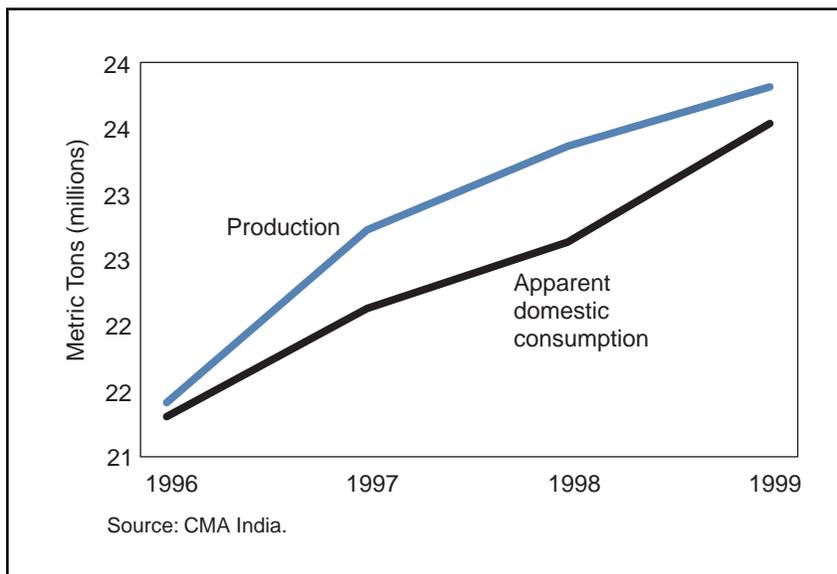
Total exports fell another 18 percent in the next fiscal year,<sup>150</sup> forcing producers to lower crude steel capacity utilization from 76 percent in FY 1997–1998 to 71 percent in FY 1998–1999 (Chart 6-11).<sup>151</sup>

## Costly Debt

By 1999, worsening debt burdens resulted in significant losses for many steel producers. Some of the new steel plants had come on-line in the midst of depressed demand. By some estimates, some of the new flat-rolled plants will be operating at between 40 percent and 50 percent of installed capacity.<sup>152</sup> When these investments were made, banks and investors paid little attention to expected returns or project risks, focusing heavily on the government's projections of booming demand.<sup>153</sup> Investors did not heed the relatively high cost of capital, financing many new investments with short-term lending at high interest rates. The large integrated producers, who had also invested heavily during the 1990s in plant modernization, also suffered under unsustainable debt levels.

## Structural Overcapacity

Massive investments and government intervention, combined with stagnating growth in domestic demand, have left the Indian steel industry with significant overcapacity. These conditions contributed to dramatically falling prices in many product categories. While steel producers have begun to see relief, Indian domestic prices have



**6-12. Indian Production vs. Consumption, Finished Products**

not rebounded at the same pace as international prices given this excess capacity. One government source cites domestic overcapacity as the principal problem facing Indian steel producers.<sup>154</sup>

The most problematic product category is flat products, which accounted for most of the new investments that were made during the past decade by the private sector. One source estimates demand for hot-rolled coils in FY 1999–2000 of just over 9 million MT, compared to supply of almost 12 million MT (including imports).<sup>155</sup> The government forecasts that domestic capacity of hot-rolled coils will increase to 15 million

MT by 2001–2002 when additional projects come on-line. Domestic demand would have to grow by more than 10 percent a year for the next four years in order to meet the government's early 1990s forecasts<sup>156</sup> (Chart 6-12).

## Government Assistance

As the situation for Indian steel producers worsened in FY 1998–1999, the industry began a campaign to obtain aid from the government, with the Ministry of Steel lobbying on their behalf. As a result, the government stepped in to address the problem of bank overexposure and steel companies' need for debt relief. Another measure to assist the steel sector includes lifting the surcharges on major steel inputs.<sup>157</sup> The government's intervention has allowed producers to continue operating and maintain capacity.

## Banks' Debt and Equity Exposure

**Debt.** Low and declining sales volumes in domestic and export markets made it increasingly difficult for Indian steel companies to service their loans. The exposure of financial institutions in India due to aggressive lending practices in the early 1990s was already on average 12 percent of banks' portfolios.<sup>158</sup> Many of the new steel projects were not completed within stipulated time frames, forcing companies to take on additional debt.

**Equity Stakes.** Major equity stakes in the steel sector increased many financial institutions' exposure. Their stakes had originally accumulated due to the lack of public interest in the companies' equity issuances.<sup>159</sup> Even though these banks have refused to finance additional steel projects, their existing equity stakes have compelled them to refinance the steel companies' current debt.<sup>160</sup> To that end, the Industrial Development Bank of India promised that while no new projects will be approved in the near future, all plants currently in the pipeline will receive sufficient funding to be completed.<sup>161</sup> Since the Asian financial crisis, about \$2 billion in additional financing has been sought.<sup>162</sup>

The ultimate effect of this assistance has been to increase company borrowing, even as company profits declined, resulting in growing debt to equity ratios (*Chart 6-13*).

**Import Surcharges.** The government also lifted the surcharges levied on major steel inputs, forgoing tax revenue in an effort to reduce production costs for suffering Indian steel companies.<sup>163</sup>

	1996–1997		1997–1998		1998–1999	
	Profit (million R)	D/E (percent)	Profit (million R)	D/E (percent)	Profit (million R)	D/E (%) (percent)
SAIL	4.5	210	-5.3	230	-18.5	300
TIS	11.3	100	8.5	110	2.1	130
ESSAR	0.7	180	1.2	210	-24.9	290

Source: CMA India.

**6-13. Profits and Debt-to-Equity Ratios of Three Indian Steel Producers**

### SAIL Bailout

The most telling example of recent direct government intervention is the restructuring package for government-owned SAIL. In February 2000, the Cabinet Committee on Economic Affairs approved a package of approximately \$2.2 billion for the company's financial and business restructuring. While the financial package does not entail direct cash infusions, the government will provide SAIL with several valuable kinds of assistance:

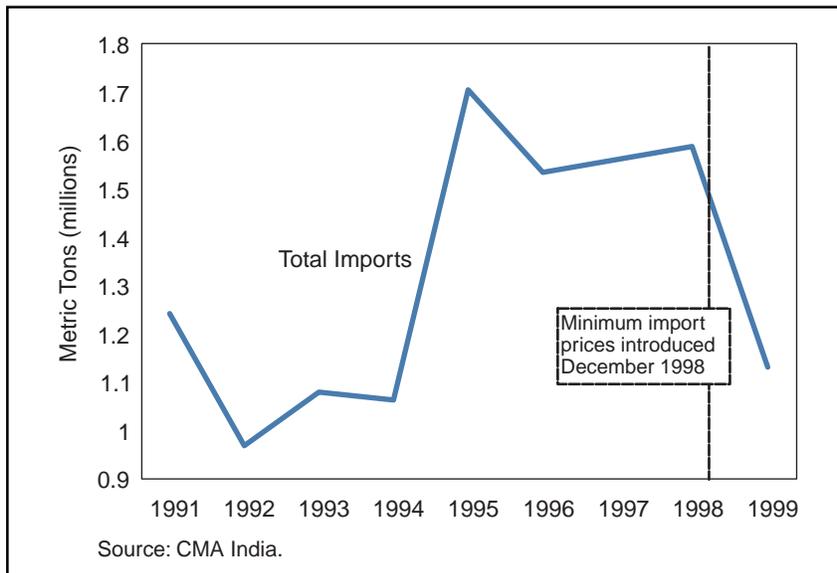
- A writeoff of about \$1.14 billion in loans from the Steel Development Fund.<sup>164</sup>
- New government loans of about \$86 million.
- Loan guarantees for private sector loans totaling about \$67 million.
- Permission for SAIL to write off a \$440 million loan advanced to its subsidiary, Indian Iron and Steel Company, and waive \$114 million in interest on loans to that subsidiary that were previously written off.
- Guarantees for an additional \$675 million in market financing; \$337 million to finance SAIL's voluntary retirement scheme, and \$337 million to service its current-year debt burden.<sup>165</sup>

### ***Private Sector Response***

Industry reaction to the SAIL bailout has been mixed. Private companies, including TISCO, are expected to ask for similar treatment.

Others have criticized the government's bailout of SAIL. The most vocal has been Indofer, an association of private steel producers including Ispat, Lloyds Steel, Essar Steel, and Jindal Steel. According to these companies, "The government decision to waive steel development fund loans is highly discriminatory and will put the company [SAIL] above the other major steel producers in the competitive market for financial resources."

The government's intervention may help SAIL not only maintain production, but increase it as well. SAIL faces intense domestic competition and needs to deal with mounting inefficiencies. This bailout largely obviates any motivation for SAIL to take the painful steps of downsizing and consolidation. As such, the bailout is not expected to help SAIL get back on its feet in the long term.<sup>166</sup> For the most part, private sector companies have generally refrained from harsh criticism of the bailout. Many of these companies maintain similarly high debt loads and may, themselves, seek similar kinds of government assistance.<sup>167</sup> Some industry groups, however, have been vocal in their opposition (*see box*).<sup>168</sup>



**6-14. Indian Imports of Steel, All Products**

### **Import Barriers, Old and New**

In late 1998, as the threat of low-priced imports increased, the government did not shy away from imposing temporary import measures to protect the domestic industry. These measures, along with existing import barriers, have contributed to a decline in imports of almost 35 percent from FY 1995 to FY 1999, bringing imports down below 5 percent of domestic consumption in FY 1999<sup>169</sup> (*Chart 6-14*).

**Import Floor Prices.** The most notable government intervention was the imposition of a minimum floor price regime for steel imports. At the urging of the Ministry of Steel, the Ministry of Commerce in December 1998 specified floor prices for import of hot-rolled steel coils, cold-rolled steel coils, hot-rolled sheets, tin-plates, electrical sheets and alloy steel bars and rods. Imports of hot-rolled steel coils, for example, were allowed only if the minimum customs value was at least \$254 per MT.<sup>170</sup> According to the Joint Plant Committee, "the basic purpose of [the] imposition of [a] floor price was to safeguard against dumping of steel at low prices due to [the] surplus scenario in [the] international market."<sup>171</sup>

Minimum prices on steel were withdrawn in January 2000 for primary products (excluding secondary materials such as scrap). However, domestic producers took the government to court, and the Calcutta High Court ruled that withdrawal of the minimum import prices was "not in the interest of the domestic industry." Thus, in February, minimum import prices for primary steel were reinstated.<sup>172</sup> While the Indian government is trying to reverse this ruling in the Supreme Court, pressure is mounting from domestic industry to leave the measure in place. The U.S. government is currently reviewing the consistency of this action with India's obligations under the WTO.<sup>173</sup>

**Tariffs.** High tariff rates also continue to insulate India’s steel industry. While tariffs on steel have been reduced substantially over the last decade, they remain high compared to other developing countries<sup>174</sup>—currently averaging about 25 to 30 percent.

**Surcharges.** Starting in FY 1999–2000, a 10 percent surcharge has been added on top of the basic import duty.<sup>175</sup>

**Administrative Hurdles.** The administrative burden of importing steel to India has remained quite high. Customs procedures are extensive and cause frequent delays.

## Export Subsidies—The Staple of Indian Government Assistance

Export subsidies have long influenced the business practices of Indian steel companies, and their importance is expected to grow along with the industry’s growing emphasis on exports.<sup>176</sup> These complex programs and schemes use various licensing, duty and export financing mechanisms to subsidize exporting (*see box*).<sup>177</sup> There are three specific examples:

- **Special Import Licenses (SILs) Program.**<sup>178</sup> Exporters and manufacturers that have attained certain export levels or that have met certain production quality standards are eligible to receive SIL equal to up to 25 percent of the value of their exports.<sup>179</sup> Companies can use licenses to import products from the Restricted List of Imports or sell the license for a premium equal to a percentage of its face value on the open market.<sup>180</sup>
- **Export Promotion of Capital Goods Scheme.** Firms that meet certain export obligations are eligible to import capital equipment at reduced duty rates.<sup>181</sup>
- **Duty Entitlement Passbook Scheme.** Government-designated manufacturers and exporters can claim credits on certain imported inputs and use the credits to pay customs duties on subsequent imports.<sup>182</sup> This program enables companies to import inputs without paying India’s basic customs duty.

### *Legacy of Past Government Assistance*

Under the freight equalization scheme, the huge transportation costs incurred by steel companies were paid by the government. As a result, production facilities were built near iron ore deposits, regardless of the location of the ultimate steel purchaser.

When this program was recently eliminated, steel producers had to bare the exorbitant cost of transporting steel throughout India. While not enough to alter production schedules, this added burden has come at a difficult time for producers already dealing with low domestic prices.

A number of such export programs were found to be unfair export subsidies by the U.S. government in a recent countervailing duty investigation of steel plate from India.<sup>183</sup>

## Assessment: Problems and Some Possible Solutions

Indian steel producers have gone through one of their worst downturns in years, suffering from stagnant domestic demand and overcapacity. Through the first half of the 1990s, high growth masked a number of problems that are critical in a slower growth environment, including antiquated technology and low labor productivity. Now, the Indian steel sector is going through a period of change. In 1999, for the first time, production was curtailed in the face of weak demand and declining prices. SAIL took the lead by shutting down two blast furnaces, although they were relit in April 2000. Temporary slowdowns in production will not, of course, solve the problems of the steel sector. Given lackluster domestic demand in recent years, many companies plan to pursue export-oriented business strategies. It is also likely that the government will continue to actively support the domestic steel industry. As long as the government remains actively involved, there will be concerns that exports from India may not be fairly traded.

## Continued Overcapacity

In the meantime, overcapacity will continue to result in increased inventories and reduced prices, and it will adversely affect profitability.<sup>184</sup> One source indicates that much of the new capacity added in recent years is nonviable and will only survive if long-term lenders write off large portions of debt.<sup>185</sup> This may lead private companies to look for the type of government intervention exemplified by the SAIL bailout package. Such measures, including debt-to-equity swaps, may clear the books of bad debt but do little to keep the debt problem from recurring.

By all accounts, the most promising strategy for addressing the overcapacity problem would be to more fully develop India's domestic steel demand. There are a number of standard uses for steel which India has not yet developed (*e.g.*, truck bodies are still constructed of wood, and scaffolding of bamboo). If India adopted these uses, domestic steel consumption would improve.<sup>186</sup> To this end, four private sector producers (Ispat, Essar, Jindal, and Lloyds) formed Indofer, a representative body intent on exploring avenues for increased domestic steel consumption. Representatives of the group have stated that they expect to increase domestic consumption by at least 2 million MT, using measures such as a ban on asbestos corrugated sheets to increase steel consumption in construction.<sup>187</sup>

Recently, domestic demand for steel in India picked up. Infrastructure development, a major use of steel, grew at an annual rate of almost 8 percent during the first four months of calendar year 2000.<sup>188</sup> Although overall demand is growing, it is not keeping pace with India's crude steel output, which grew by 12.5 percent during the first quarter of calendar year 2000.<sup>189</sup>

## Technology and Labor Issues

Further exacerbating the precarious situation for steel producers is the continued use of antiquated technology. About 26 percent of India's steel continues to be made with highly inefficient open hearth furnaces, while only 40 percent is produced by continuous casting.<sup>190</sup> In order to become internationally competitive, the industry must modernize, especially older integrated producers. While some newer mills are producing high-end niche products, most Indian mills are inefficient. Even SAIL has its 11 million MT aggregate capacity spread across five integrated mills. Both SAIL and TISCO have recognized this problem and made plant modernization a top priority.<sup>191</sup>

Labor productivity is a major issue closely associated to technology. Total labor costs to produce a ton of steel in India are higher than those in either Japan or Korea,<sup>182</sup> given that the production process in India is much more labor intensive than that of the more developed producers. This translates into relatively low labor productivity numbers, especially for the major steel producers. SAIL and TISCO produced only 49 MT and 52 MT, respectively, per employee in FY 1998–1999.<sup>193</sup> In total, SAIL employed more than 175,000 workers in 1999, while TISCO employed about 60,000.

While labor is abundant and labor costs are low in India, high employment inhibits the major producers from rationalizing production and introducing new technologies. The steel industry in India employs an estimated 2 million people. As much as producers appear to want to reduce their labor forces through voluntary retirement schemes, they face stiff opposition from vocal and disruptive labor unions.<sup>194</sup> Labor, a very powerful force in India, is wholeheartedly opposed to streamlining the steel industry. Thus, it is unlikely that labor productivity will be improved any time in the near future.

## Export Growth

While low product quality makes India's older producers uncompetitive, the new steel plants are poised to export a significant portion of their production given the higher quality of the products,<sup>195</sup> particularly of hot-rolled flat products. Many of India's steel producers, old and new, have targeted export markets as the principal source of

new sales growth.<sup>196</sup> By 1998, even before many of the new state-of-the-art steel plants had come on line, estimates indicate that India's finished steel exports had increased by more than 500 percent compared to 1991.<sup>197</sup> This trend is expected to continue in the coming years as even more capacity comes on line.<sup>198</sup> For example, according to U.S. Census data, U.S. imports of steel mill products in 1998 increased 106 percent compared to 1997. In 1999 imports from India increased again, up 46 percent from 1998. During the first five months of 2000, U.S. imports of steel mill products are up 187 percent compared to the same period in 1999.

With the government expected to continue assisting and protecting the steel industry, there is significant potential for India's market-distorting practices to disrupt global steel trade.



## CHAPTER 7

# Avoiding Future Crises

### Introduction

The President's Steel Action Program states, "We will continue a policy of zero tolerance of unfair trade." This commitment was maintained when the Administration reacted forcefully and responsibly to the steel crisis through the following actions:

- Since early 1998, the Commerce Department has conducted more than sixty trade remedy investigations on steel, many completed on an expedited basis, and is currently enforcing more than 100 antidumping or countervailing duty (AD/CVD) orders or agreements on steel products from all over the world. The Administration also provided relief for wire rod and line pipe under the "safeguard law," Section 201 of the Trade Act of 1974.
- The Administration actively engaged in bilateral consultations with various trading partners to address unfair practices supporting excess capacity. We have held several rounds of bilateral consultations with Japan and Korea, and the Administration negotiated a comprehensive agreement with Russia to reduce its steel exports to the United States.

These efforts were effective. However, the steel crisis showed that additional initiatives are needed to make the trade remedy process more timely and effective, and to address subsidization and other market-distorting practices in the steel industry that foster dumping. To accomplish these goals, the Commerce Department and the United States Trade Representative, in consultation with other agencies, have developed a strategy that includes the following points:

- Maintain strong U.S. trade laws consistent with the World Trade Organization (WTO).
  - Work to maintain strong trade laws in the WTO.
  - Increase resources for WTO dispute settlement litigation.
- Provide early warning of import surges and industry conditions.
  - Continue early release of steel trade statistics.
  - Monitor domestic industry trends.
  - Provide timely information to domestic steel firms and their workers on changing market conditions.
- Provide faster relief for industries, workers, and communities.
  - Ensure fair trade laws are responsive to crisis situations.
  - Establish a federal rapid response team to help communities and workers hit by unfair trade.
- Address market-distorting practices in global steel markets.
  - Continue focused bilateral engagement with Russia, Japan, Korea, and Brazil.
  - Monitor key new players.

- Reinvalidate the international steel policy agenda.
  - Make the Organization for Economic Cooperation and Development (OECD) Steel Committee a viable forum for real progress.
  - Restrict government and multilateral development bank lending to expand steel capacity.
- Promote more market-oriented financial systems, including in major steel-producing countries, through complementary measures.

## **Maintain Strong, WTO-Consistent U.S. Trade Laws**

Recognizing the need to maintain effective trade remedies, the Administration firmly opposed all efforts to reopen the Antidumping Agreement during the WTO Ministerial in Seattle. The United States tabled a proposal to strengthen implementation efforts by the existing WTO Antidumping and Subsidies and Countervailing Measures Committees and to discuss certain implementation issues raised by developing countries regarding the existing agreements. Maintaining strong U.S. trade laws continues to be one of our highest priorities for a new round of negotiations.

The Administration also negotiated strong terms on antidumping and subsidies in the agreement regarding China's accession to the WTO. Under the terms of the U.S.-China bilateral agreement signed in November 1999, China has committed to important disciplines on subsidies and agreed to guarantee our right to continue using our current antidumping methodology (treating China as a nonmarket economy in antidumping cases for fifteen years after China's accession to the WTO).

Challenges to U.S. trade laws in WTO dispute settlement proceedings have been increasing. Japan has recently formed a special task force within its Ministry of International Trade and Industry to bring WTO challenges against trade remedy rulings made against Japan by the United States. In response, the Administration is strengthening its resources to forcefully defend U.S. trade laws in WTO dispute settlement litigation. The Commerce Department has increased personnel dedicated to WTO litigation support in the Department's Import Administration and Office of the Chief Counsel. Funding is also being sought in the Administration's budget request for FY 2001 to increase WTO litigation resources within the Office of the U.S. Trade Representative (USTR) and the Commerce Department.

## **Provide Early Warning of Import Surges and Industry Conditions**

### **Early Release of Steel Trade Statistics**

The Commerce Department's Bureau of the Census will issue steel import statistics on an expedited schedule (approximately one month early) at least through January 2002. The Bureau of the Census will also expand the list of products for the early release of statistics to include certain steel inputs and certain additional steel products.

These actions are an extension of the commitment made in the President's Steel Action Program to continue the early release of steel import statistics through December 2000. Domestic steel producers, steel workers, trading companies, and steel service center operators have indicated that the early release of steel statistics by the Census Bureau significantly enhanced market stability by allowing market participants to better assess market conditions. The early release of trade statistics also allows more rapid responses by government policymakers.

### **Monitor Industry Trends**

Our experience in responding to the steel crisis and our consultations with steel industry representatives have highlighted the need for an early warning system for any potential future crisis. Accordingly, we

propose to monitor additional data on the steel industry, steel consuming sectors, and steel demand each month to more quickly detect trends in the steel industry. No economic forecasting will be conducted; the focus will be to collect existing data to provide the greatest early warning for possible future steel industry downturns.

The types of data that the Department of Commerce will monitor include the following:

- Shipments of total basic steel mill products and shipments by steel sector.
- Raw steel production and raw steel capacity utilization.
- Apparent consumption (shipments minus exports plus imports) of major steel product groups.
- Industry productivity.
- Import penetration (imports as a percent of apparent consumption) by product group.
- Average weekly steel industry overtime hours and other U.S. Bureau of Labor Statistics steel industry employment data.

We will make this information available to the public on a comprehensive page within the Commerce Department Web site (<http://www.ita.doc.gov>) and circulate summary reports each month to key government agencies.

During the crisis, domestic steel producers, the United Steelworkers, and several members of Congress expressed concern that, after trade remedy investigations were begun on certain products, the industry and workers were still being economically injured by unfairly traded imports of related products and products from other countries. The Commerce Department believes that during times of extraordinary import surges such as occurred in the steel sector in 1998, intensive product-specific monitoring, including under Section 732 of the Tariff Act of 1930, can be an effective tool to monitor surges of potentially unfairly traded goods from other supplier countries. Such intensive monitoring would include monitoring of import volumes and prices.

### **Provide Timely Information to Domestic Steel Firms and Their Workers on Changing Market Conditions**

Our discussions with smaller domestic steel producers and local unions have shown that sometimes they are not aware of changing market conditions until they begin losing orders and reducing the number of hours worked at their mills. Each month, the Commerce Department will provide the early warning information it obtains to domestic steel producers and their workers through an e-mail broadcast and make the data publicly available through the Internet.

### **Monitoring Global Steel Production and Consumption**

The collapse of foreign steel consumption after the global financial crisis was a critical event in the 1998 steel crisis. To better assess upcoming market conditions, the Commerce Department will also monitor foreign indicators of steel production and consumption. In addition, the Administration's FY 2001 budget request would support Commerce Department personnel in key posts abroad who could monitor foreign market trends such as production and home market consumption of specific products.

### **Steel Report Update**

The Department of Commerce will continue to monitor foreign market-distorting practices in the steel industry and will issue an update to this report in 2001. This update will address trade trends and monitor movements toward open markets.

In addition to the market-distorting practices identified in this report which affect prices, there are differences in cost which result from the different endowments of producers around the world. These cost differences affect international competitiveness in steel production. We will conduct additional research to document the relative differences in these costs and to determine whether cost differences occur through normal market forces or through government subsidies or other distorting practices. The results of this research will be published in the update to the steel report in 2001 focusing on the following areas: legacy costs from downsizing; capital costs; and environmental regulation costs.

## **Provide Faster Relief for Industries, Workers, and Communities**

### **Strengthening the Crisis Response Mechanisms in the Fair Trade Laws**

The decline in total steel imports in 1999 was driven by the increase in products subject to AD/CVD investigations: Imports of hot-rolled steel in 1999 decreased 43 percent from 1998 levels; heavy structural steel imports decreased 49 percent; and cut-to-length plate decreased 57 percent in the same period. These statistics show that AD/CVD remedies can provide effective relief from a surge of unfairly traded imports. However, by the time the trade remedy petitions had been filed, there had already been substantial harm to the U.S. industry. The Administration established an informal group to meet with industry and union representatives to discuss legislative and other proposals to address these issues as appropriate.

Within existing laws, the Department of Commerce has also developed a number of initiatives to provide faster and more effective relief under the trade laws.

#### **Reduced Incentives for Increasing Shipments Before Trade Remedies Take Effect**

In many instances, import surges intensified after antidumping petitions were announced or filed by domestic producers and continued until the preliminary determinations were published by the Commerce Department. This occurred as steel traders rushed to “beat the clock” and ship greater quantities of steel before the AD/CVD remedies were put into place. To combat this, Commerce announced two policies during the steel surge: expediting antidumping investigations, and making early critical circumstances determinations.

#### **Expedited Antidumping Investigations**

In response to the tremendous surge of steel imports in 1998, the Commerce Department—for the first time ever—completed the preliminary determinations earlier than the normal schedule in fifteen antidumping investigations. Commerce compressed the schedule for its internal work while preserving the statutory time periods for participation by domestic and foreign parties to the proceeding.<sup>1</sup> This enabled Commerce to provide earlier relief from unfairly traded imports. In addition to instituting this practice, Commerce has issued a policy bulletin addressing the criteria to be used in deciding when it is appropriate to expedite an investigation. Because conducting expedited antidumping investigations is a resource intensive process, the Administration’s budget request for FY 2001 seeks funding for additional Commerce Department resources to allow the conduct of expedited antidumping investigations.

#### **Early Critical Circumstances Determinations**

Where critical circumstances exist, U.S. law and the WTO Antidumping Agreement provide for the imposition of retroactive antidumping measures for a period of ninety days prior to the preliminary

determination of dumping. In October 1998, the Commerce Department announced a new policy on critical circumstances. Under this policy, a preliminary determination regarding critical circumstances may be made prior to the preliminary determination of dumping, assuming adequate evidence of critical circumstances is available. The early announcement of preliminary critical circumstances determinations will put importers on notice—earlier than ever before—that they could be liable for retroactive dumping duties as far back as ninety days prior to the preliminary dumping determination by Commerce.

## **Enforcement and Anticircumvention Initiatives**

As the administrator of the antidumping and countervailing duty laws, the Commerce Department depends upon the efforts of the U.S. Customs Service to enforce these trade remedies at the border. As the 1998 steel crisis intensified, Commerce and Customs increased their coordination and enforcement efforts, with a special focus on preventing the circumvention of trade remedies. The two agencies expanded information and educational exchanges between steel experts at Commerce and Customs' Strategic Trade Center in Chicago and met with representatives of the domestic steel industry to identify their anticircumvention priorities.

As a result of this process, Commerce and Customs have agreed to enhance their mutual enforcement efforts in the following ways. First, the agencies will work with the Census Bureau to release statistics on the volume and value of imports subject to antidumping and countervailing duty trade remedies to the public on a more frequent basis. This will allow more precise monitoring to detect circumvention.

Second, the Customs Service has agreed to include language in relevant classification and country of origin rulings to highlight the fact that Customs decisions do not affect the coverage of antidumping and countervailing duty cases. For example, while the Customs Service might treat a steel product as a semifinished product for purposes of Harmonized Tariff Schedule classification, this import can also meet the definition of flat-rolled products covered by antidumping and countervailing duty actions. Including this language in Customs rulings will help to prevent importers from circumventing antidumping and countervailing duty trade remedies.

Third, because the vast majority of the antidumping and countervailing duty determinations apply to the manufacturer of the imported goods, the manufacturer's identity is critical to the U.S. government's ability to detect questionable trade patterns. Customs has agreed to require that importers report electronically in their entry documentation the actual manufacturer (rather than the exporter or seller) of goods subject to antidumping and countervailing duty trade remedies. This will facilitate any trade trend analysis that is undertaken.

## **Establish Federal Interagency Rapid Response Team to Help Communities and Workers Hit by Unfair Trade**

In times of crisis, communities and workers are frequently unaware of the resources of the federal and state governments that are available to address the economic dislocation caused by import surges. Historically, there has not been a formal information sharing arrangement between the administrator of the antidumping and countervailing duty laws within the Commerce Department and the administrators of trade adjustment assistance programs within the Department of Labor and the Economic Development Administration (EDA) within Commerce. The agencies have now agreed to establish a process through which workers and communities identified in antidumping and countervailing duty petitions will be referred for counseling about trade adjustment benefits and programs.

In addition, the President's FY 2001 budget includes \$35 million for the Community Economic Adjustment Initiative (CEAI) to provide for a coordinated federal response to communities facing

### ***Community Economic Adjustment Initiative***

*Coordinates federal response.* Provides a coordinated response to these affected regions utilizing resources of the Departments of Agriculture, Commerce, Education, Labor, and Treasury; the Small Business Administration; and other federal agencies. This will ensure that communities are aware of all available federal resources and that federal agencies respond in a coordinated way both in Washington and on the local level.

*Creates an Office of Community Economic Adjustment (OCEA).* Crafts and coordinates Administration-wide responses and provide initial recovery funds for regions experiencing severe and sudden economic distress.

*Expands economic adjustment assistance by \$175 million over five years.* The Administration will propose a \$35 million per year increase in additional economic adjustment funding as part of EDA's budget.

economic dislocations. The Initiative is modeled after the Department of Defense's highly respected Office of Economic Adjustment—the federal government's first point of contact with communities slated for a military base closure. Under the CEAI, an Office of Community Economic Adjustment (OCEA) would be created within EDA to coordinate Administration-wide responses and provide initial recovery funds to regions experiencing sudden and severe economic distress regardless of cause. The OCEA would focus on, but not be limited to, communities affected by trade. The OCEA will ensure that communities are aware of all available federal resources and that federal agencies respond in a coordinated way both here in Washington and at the local level. OCEA will provide planning grants and technical assistance to help communities organize themselves and develop an economic adjustment strategy. The Initiative also expands EDA's Economic Adjustment program to assist communities in implementing their adjustment strategy. On June 21, 2000, Representative John Larson of Connecticut, on behalf of a bipartisan group of 163 original co-sponsors, introduced

the Community Economic Adjustment Act of 2000 (H.R. 4711), which closely tracks the President's proposed initiative (*see box*).

## **Address Market-Distorting Practices in Global Steel Markets**

### **Bilateral Engagement**

Bilateral engagement with foreign governments has proved to be an important means through which U.S. concerns over structural distortions in the steel sector can be raised and addressed, such as occurred with the Korean steel company, Hanbo Steel. The Administration pursued a comprehensive strategy to obtain an expeditious and commercially viable solution (*see box, next page*).

This successful approach will be used to address the underlying structural problems in the global steel industry. This will include the following:

- Intensive monitoring.
- Increased analysis by the Department of Commerce's Subsidies Enforcement Office to assess whether any activities identified constitute actionable subsidies under the WTO Agreement.
- Focused bilateral engagement through the ongoing formal dialogues on steel led by USTR; through informal bilateral meetings at all levels of government; and through multilateral forums such as the OECD Steel Committee.
- Potential WTO dispute settlement action.

This process of engagement will involve the concerted interagency efforts of the Administration.

### ***Engaging Korea On Hanbo***

In late 1997, the U.S. government initiated bilateral consultations with the Korean government regarding the financial support being provided by the Korean government to Hanbo Steel. The Administration engaged the Korean government at the highest levels in discussions aimed at ending any market-distorting subsidies to Hanbo and ensuring a market-driven sale of the company.

Working closely with the industry to gather information about potential subsidies to Hanbo, the Department of Commerce was then able to direct several rounds of detailed questions to the Korean government concerning any financial and operational support provided to Hanbo both prior to and following the company's 1997 bankruptcy. The Administration did not limit raising issues concerning Hanbo to bilateral consultations but also addressed these issues in other appropriate forums, such as the OECD Steel Committee meetings; WTO Subsidy Committee meetings; in letters exchanged between Korean Trade Minister Han and USTR's Ambassador Fisher and Commerce Under Secretary Aaron; as well President Clinton and Ambassador Barshefsky raising the steel problem with Korean President Kim during his State visit in June 1998. Secretary Daley and Under Secretary Aaron also raised the issue of Hanbo in meetings with top Korean government officials.

Hanbo has now been sold through a process led by an independent investment bank.

### **Russia**

During the June 2000 Presidential Summit in Moscow, the U.S. government initiated a U.S.-Russia Steel Dialogue to focus on structural issues plaguing the Russian steel industry. The duration of the 1999 Comprehensive Steel Agreement provides the necessary stability in steel trade between the United States and Russia, creating the opportunity to address economic, structural, and commercial factors affecting the industry.

The Joint Steel Dialogue will have three components: high-level government-to-government exchanges; joint government-industry discussions and activities in which industry, unions, and governments develop programs to advance the goals of the Steel Dialogue; and direct industry-to-industry and union-to-union contacts devised and managed by the private sector.

The first government-to-government meeting will be held in the fall of 2000 and will focus on structural and market-based factors that have historically led to trade disputes in the steel sector; the impact of globalization on the steel industry; and technical assistance designed to avoid trade disputes, foster stability in steel trade and encourage the development of the Russian domestic steel market.

### **Japan**

The information developed for this report underscores the importance of addressing the key underlying structural problems in the Japanese steel industry.

***Addressing the apparent lack of competition among major producers.*** The apparent lack of competition between major integrated producers is the most significant structural distortion in the Japanese steel industry. Because the elimination of anticompetitive practices is necessary to the promotion of pricing and production decisions more in line with market forces, an interagency group consisting of the Departments of Commerce, Justice, and State; the USTR; and other interested agencies will further discuss with the government of Japan in an appropriate forum information in the U.S. government's possession concerning competitive conditions in the Japanese steel market.

In addition, the Administration is pressing Japan to strengthen its general antitrust enforcement by:

- Undertaking more aggressive enforcement activities against collusive cartel activity.
- Strengthening the criminal investigation and sanction powers of the Japan Fair Trade Commission (JFTC).
- Taking proactive measures to promote competition throughout Japan's economy.
- Significantly increasing the JFTC's staff and budget.
- Making necessary changes to create a workable system allowing private parties to bring private actions for injunctions and monetary damages.
- Taking additional measures to ensure the independence of the JFTC when it is transferred to another agency as a result of the central government reorganization in January 2001.

***Opening the Japanese Market to Imports.*** The continued low level of Japanese steel imports (at a level well under 10 percent of Japanese domestic consumption) minimizes the foreign competition that could lower domestic prices and stimulate competition among major Japanese firms.

We will focus our bilateral discussions on import barriers by taking the following actions:

- The Administration will continue to press this issue bilaterally on all levels focusing on distribution barriers, certification requirements and restrictive international arrangements, such as the market sharing arrangements between Japanese and European seamless pipe producers which were the basis of a 1999 antitrust finding by the European Commission.
- The Administration will analyze regional steel trade patterns and inquire into why imports into Japan remain at such relatively low levels when the prevailing prices for steel in Japan are higher than those in nearby low-cost producing markets such as Korea and Taiwan.
- The Administration will monitor import trends, including (1) overall import levels, (2) import levels by major product, and (3) the extent to which imports compete directly with domestic products of the same product category, or whether imports are only complementary, filling product niches which are not supplied domestically.

***Monitoring the Industrial Revitalization Law (IRL) and Its Implementation.*** The Japanese government enacted the IRL in 1999 to promote business restructuring. The IRL encourages corporate mergers and spinoffs, as well as the sale of unprofitable businesses and the scrapping of excess capacity.

Incentives which are provided under the IRL include low-interest loans, loan guarantees and various tax incentives. We are concerned that these incentives could be used in a manner that preserves excess capacity, indirectly subsidizes export efforts, or sustains nonviable enterprises.

We will focus on the following: (1) under what criteria recipients are chosen for receipt of incentives under the IRL, (2) which companies have been selected or will be selected, (3) the types of incentives that have been received, and (4) whether the incentives which are provided under the IRL are consistent with Japan's obligations under the WTO.

***Monitoring the New Role of the Development Bank of Japan (DBJ).*** In 1999, the DBJ extended credit to several steel companies when Japanese private commercial banks, grappling with balance sheet difficulties, reduced lending across the board. Such lending raises concerns about government financing to a mature private industry. Accordingly, we will monitor the DBJ's new role, to ensure that it is consistent with Japan's obligations under the WTO.

## Korea

Korea's steel industry has been characterized by underlying structural problems due to past practices, such as anticompetitive practices, unsound bank lending, and inefficient bankruptcy procedures. The Korean government has undertaken broad economic reforms, but these reforms are far from complete. As a recent OECD report stated, if reforms are not implemented in a timely fashion, structural weaknesses could worsen: "Without sustained reforms to complete the current visions, the Korean economy will be mired in a confusing and distorting policy environment that holds back growth and plants the seeds for future problems."<sup>2</sup> Monitoring to ensure that ongoing financial and corporate reforms in Korea continue will be especially important, given that Korea's International Monetary Fund program will be ending this year.

**POSCO.** While it has sold some of its holdings in POSCO, the Korean government remains the largest single shareholder in the company. Further, the company continues to have a monopoly position in the domestic market for certain major steel products and maintains its power over the distribution sector.

We will seek further information on the (1) elimination of government representation on POSCO's board of directors; (2) termination of Korean government involvement in POSCO through full privatization (including selling shares held by the Industrial Bank of Korea); and (3) implementation of the Korean Fair Trade Commission's antitrust recommendations regarding POSCO.

**Steel Industry Restructuring.** In stride with the Korean government's reform program, the Korean steel industry is slated for significant restructuring. Under the Korean government's guidelines for restructuring of the steel industry, support for selected steel producers that are financially weak, but potentially viable, is promoted. Support to be offered by a company's major creditor banks includes conversion of debt into equity, reductions in interest rates, and new loans. In addition, rationalizing the steel industry by promoting mergers, acquisitions, liquidations, and plant shutdowns is also encouraged.

We will focus bilateral discussions on (1) which steel companies enter into "support" agreements with their creditor banks, which creditor banks are involved, and what supports are being offered; (2) the basis for debt-to-equity swaps in the steel industry, how the swap ratios are determined and exactly what impact they have on the overall health of the companies; (3) how debt is being restructured or forgiven as part of the process of mergers and acquisitions in the steel industry, and the effect on production resulting from mergers; (4) plans for privatizing steel companies brought under the ownership of the Korean government by conversions of debt into equity, such as Kia Steel; (5) the relationship of the Korean Development Bank to the steel industry to ensure that it is consistent with Korea's obligations under the WTO; and (6) the disposition of steel company debt held by nationalized banks.

In addition, the Administration will continue to monitor ongoing restructuring in the financial and corporate sectors, in view of the potential risk that the Korean steel industry could benefit from targeted, industry-specific, distortionary policies.

**Steel Restructuring and an Effective Bankruptcy System.** One of several major objectives of the Korean government's corporate reform measures is to improve insolvency procedures. Such improvement would help facilitate a market-oriented exit system, which would address the problem of steel producers staying in the market well beyond their financial viability. Although Korea has already modified its bankruptcy laws, even with appropriate laws in place, the government must refrain from intervening in bankruptcy decisions for the exit market to function properly.

The Department of Commerce, in consultation with USTR and the Treasury Department, will focus on (1) the government's role in bankruptcy and out-of-court workout schemes for steel companies and (2) an

examination of the workout procedures for steel companies under the Corporate Restructuring Accord, including deferred payment of principal or interest, interest rate cuts, debt-forgiveness, provision of new credit, cancellation of existing debt payment guarantee obligations, debt/equity swaps, and the allocation of any costs to creditors resulting from restructuring.

## **Brazil**

Brazil has made significant strides to increase its market orientation and to enforce its competition laws. Nevertheless, distortions in the Brazilian steel industry can be linked to a home market protected by nontariff import barriers, a captive distribution system, and significant cross-ownership among steel manufacturers which have in the past resulted in price collusion.

***Elimination of Cross-Ownership.*** In May 2000, Brazil's Economic Defense Administration Council (CADE) announced that it would begin investigating whether steel makers had formed a cartel to coordinate the recently announced uniform price increases of 12–14 percent on certain steel products. This recent probe underscores the need for the Brazilian steel industry to untangle the web of cross-ownership in this sector.

The Administration will urge Brazil to expand on the enforcement of its competition laws to prevent price collusion and other anticompetitive practices in the manufacture and distribution of steel. The Administration will also urge Brazil to encourage its steel industry to take measures to eliminate cross-ownership in the Brazilian steel industry and to remove the structural characteristics that facilitate anticompetitive behavior.

***Revocation of Nonautomatic Import Licensing for Steel Products.*** Under Brazil's SISCOMEX automated import licensing system, licenses for most products are typically obtained within five days. However, the Brazilian government has made several products subject to a nonautomatic import licensing system, including steel wire rod and stainless steel. Importers of products subject to nonautomatic licensing procedures may face significant delays in securing import shipment clearance. In addition to potentially violating the provisions of the WTO Agreement on Import Licensing Procedures, nonautomatic licensing in Brazil has been linked to the problem of minimum reference prices, which are also used as a requirement to obtain import licenses.

In June 2000, the United States began formal WTO dispute resolution consultations over Brazil's use of a minimum reference price system for the declared values of imported goods. The Administration will also seek the removal of steel products from Brazil's list of nonautomatically licensed imports.

***Iron Ore and Semifinished Steel Subsidies Monitoring Program.*** Given the concerns that have been raised about potential subsidies to iron ore and slab producers, the Commerce Department's Subsidies Enforcement Office will undertake an examination of subsidies to producers in these sectors in Brazil. This comprehensive examination will be completed within 180 days. If prohibited subsidies are found, the Administration will immediately begin consultations with Brazil for the elimination of those subsidies. If a satisfactory resolution is not reached within sixty days, the Administration will then determine whether additional action is warranted.

***Reduction of Import Tariffs and Fees.*** Relatively high tariffs and multiple taxes and fees are an endemic problem in Brazil that affect imports across the board. We will urge the continued lowering of import tariffs and fees as part of Brazil's process of general, autonomous trade liberalization.

## **New Players: China, Ukraine, and India**

### **China**

Through its accession to the WTO, China will be committing to important disciplines on subsidies. Under the Administration's China Enforcement Plan announced in May 2000, the Commerce Department has established a China-specific subsidies monitoring team to help ensure that China abides by its WTO subsidy commitments. The Administration has encouraged the OECD Steel Committee to organize a special workshop with Chinese representatives on the state of the Chinese steel industry and has encouraged China's observer status in the Steel Committee.

### **Ukraine**

In December 1999, the Commerce Department concluded a memorandum of understanding with Ukraine offering the same type of technical assistance package currently under way with Russia. Commerce will tailor the broader program to the specific needs of the Ukrainian government and producers.

### **India**

The Subsidies Enforcement Office will continue to monitor the actions of the government of India, specifically with respect to practices identified in this report, to ascertain whether subsidies are granted to the steel industry and to ensure that financing for steel companies is undertaken in a market-driven manner.

## **Initiate Bilateral Dialogues on Steel with Additional Trading Partners**

The President's Steel Action Program stated that the Administration will launch bilateral discussions with other countries that have contributed significantly to the steel import surge using information developed through the Administration's import and subsidy monitoring programs, and information from U.S. producers and workers to develop strategies to address specific issues.

The Administration is concerned about imports of steel from Taiwan. Since 1998, Taiwan has been subject to antidumping investigations on cold-rolled steel, stainless steel plate in coils and stainless steel sheet and strip in coils. Aggregate imports of steel products from Taiwan have increased dramatically. Imports during 1999 were up 54 percent from 1998 and 328 percent compared to 1997. Imports during the first three months of this year were up 159 percent compared to the same period in 1999. The Administration is formally requesting bilateral consultations on steel trade with Taiwan authorities.

## **Reinvigorate the International Steel Policy Agenda**

### **Renovation of the OECD Steel Committee**

For more than twenty years, the OECD Steel Committee has served as the primary international steel policy forum. During that time, the structure of the industry and market conditions have changed considerably. As a result, the committee should be reinvigorated and its operation made more results-oriented to address the key issues that foster instability in global steel trade.

Article 1 of the October 1978 Decision of the Council Establishing the Steel Committee charged the committee to seek solutions to the cyclical and structural problems experienced by the global steel industry. This original goal is still valid and important. In spite of recent constructive efforts on the part of the committee, this goal is not being fully met.

In recent years, the Steel Committee has expanded its membership and recruited additional observers such as Russia, Ukraine, and India; held special seminars on restructuring and assistance to countries of the former Soviet Union and on nonmember steel industries; agreed to hold a special seminar on China's steel industry available to all interested parties and a seminar on steel distribution and the role of e-commerce; initiated member and observer surveys of trade barriers, subsidies and other measures affecting steel trade; and, initiated a new industry-based and funded data collection effort. These efforts need to be reinforced through high level participation, and a more results-oriented structure and process.

We recommend injecting the following elements into the existing OECD Steel Committee to render it more effective.

### **Increase the Level of Participation in OECD Steel Committee Meetings**

The OECD Steel Committee now meets twice a year. The meetings are comprised of career, mid-level government officials frequently accompanied by steel mill and union representatives. In order to bring policy weight to the discussions and to make them more results-oriented, the committee should be attended by representatives from each government who are of a higher rank and can speak definitively on behalf of their governments on steel matters.

### **Quality, Relevance, and Timeliness of OECD Steel Data**

The Steel Committee needs to gather relevant steel market information in a more timely fashion and focus itself on more current events and trends. The current statistical program of the committee should be improved and expanded to collect data that is significantly more timely and relevant.

All participating countries should increase the frequency and relevance of steel data collection and evaluation. As a first step, every member and observer country should survey market indicators relevant to steel and itemize which are available on a weekly, monthly and quarterly basis. The United States and Canada have each devised their own approaches to improving the timeliness of steel import data. Each member country should explore the method which best suits its collection system. These data must be fashioned into a coherent, timely and relevant body of information subject to serious discussion by the senior delegations subsequent to commentary and analysis by a panel of private sector experts and the committee secretariat.<sup>3</sup> Assistance should be provided to members or observers, as needed, to improve data quality and timeliness.

These government analyses should be supplemented by industry-produced reports for the steel industry as a whole and by appropriate product category, as was agreed in broad principle in Paris at the May 2000 OECD Steel Committee meeting. Work on the essential details of such industry-produced reports is ongoing, and the United States must continue to ensure that potential antitrust concerns be met by avoiding, *inter alia*, the creation of short-term market forecasts.

### **Reinvigorated Agenda for the OECD Steel Committee**

Committee meetings need to be more results-oriented and relevant to current global steel issues. Working groups should be established on specific issues. Low priority programs should be eliminated to free up resources for new initiatives. The United States will request that the OECD Steel Committee place a particular emphasis on the following items on its agenda.

- **Market reforms of the steel industries in Russia and Ukraine.** Building upon the seminar conducted by the committee in November 1999, concrete initiatives should be developed to coordinate multilateral

government and private sector assistance to implement market reforms of the steel industry in Russia and Ukraine. The Committee should convene a meeting of experts from member states and international organizations to discuss how broader assistance programs can be focused on the market reforms of the steel industry in Russia and Ukraine.

- **Elimination of formal and informal import barriers to steel.** Despite substantial strides in reducing barriers to imports, there continue to be significant barriers remaining, including market sharing arrangements among companies, high tariffs and import fees, and nontransparent certification and import requirements. The Committee should analyze these barriers as they pertain to steel trade and make specific recommendations to members regarding their findings.
- **Examination of the role of trading companies and steel distributors in global steel trade.** The OECD should conduct a study and establish a dialogue at the committee's meetings to increase the understanding of steel distribution and trading in OECD and non-OECD countries. The topics could include (1) the role of trading companies, (2) the role of service centers in key markets, and (3) the difference between traders that hold inventory and those that do not.

In addition, the United States will request that the OECD Steel Committee place the following item on its agenda.

### **Examination of Official Export Credit Financing for Steel Projects and the Impact on Steel Overcapacity**

Although official export credit support for steel projects has declined in recent years, such financing can contribute to global overcapacity. Accordingly, the United States will ask that the Steel Committee review the impact of official export credit financing on steel overcapacity and consider whether a request should be made to the OECD Working Party on Export Credits and Credit Guarantees that it limit official export credit support for projects that substantially increase global steel capacity.

### **Restrict Government and Multilateral Development Bank Lending on Expanded Steel Capacity**

The President's 1999 Steel Action Program set forth a commitment to oppose international financial institution lending that increases subsidized steel production. We continue to be concerned about government intervention and support for the creation of additional steelmaking capacity around the world despite the mature condition of the global steel industry. Such programs contribute to the expansion of economically unjustifiable global steel capacity.

To address these concerns, we recommend the following actions to restrict government and multilateral development bank financing for projects which substantially increase global steel capacity.

### **Seek a Moratorium on Multilateral Development Bank Lending that Substantially Increases Overseas Steel Production**

The U.S. government will seek a moratorium on lending by the multilateral development banks for projects that substantially increase steel production capacity overseas. Exceptions to this policy may be made in the case of projects in the least developed countries (as determined by International Development Association-only eligibility in the World Bank).<sup>4</sup> In implementing this moratorium, we will take into account the U.S. policy of encouraging privatization of state-owned steel mills, provided that no government subsidies are involved in the privatization.

## **Urge Ex-Im Bank to Revise its Economic Impact Procedures for Steel Projects**

Currently, the Export-Import Bank of the United States (Ex-Im Bank) assesses whether its loans and guarantees are likely to cause substantial direct injury to U.S. industry, and is required by law not to extend such support if it would have a net adverse economic impact on U.S. production and employment. Because of the chronic overcapacity in the global steel industry and the historic levels of injurious dumping and subsidization that have occurred in steel trade, the Commerce Department, in its capacity as *ex officio* member of the Board of Directors of Ex-Im Bank, has urged Ex-Im Bank, in consultation with interested U.S. government agencies, to revise its economic impact procedures to give greater consideration to these factors and to the views of industry. Commerce has also urged Ex-Im Bank to share sufficient information in a timely manner to prepare a comprehensive analysis and discussion of financing requests.

## **Promote Market-Oriented Financial Systems in Major Steel-Producing Countries Through Complementary Measures**

A wide range of factors contributed to the sharp rise in steel exports to the United States in 1998. Foremost was the 1997–1998 financial crisis that spread through Asia and that caused severe economic downturns in many countries. The situation has greatly improved: Many countries have seen economic recovery and a return to financial stability. To prevent and respond more effectively to potential future financial crises, the Administration initiated a broad-based effort to strengthen the international financial architecture. Through the international financial institutions and other international bodies, the Treasury Department and U.S. regulatory agencies have been working to promote stronger and more resilient market-oriented financial systems around the world.

In this context, the Treasury Department will continue to actively encourage other countries, including the major steel-producing countries, to implement policies and practices to increase transparency, enhance disclosure, improve accounting standards, develop risk management, strengthen supervision, establish effective insolvency regimes, and strengthen corporate governance. While not part of the trade remedy process, these efforts can be viewed as important complementary measures to address weaknesses in financial systems that have the potential to destabilize international markets and adversely affect trade in goods, as was seen in the case of steel.

# Notes

## Chapter 1

1. Difference of average import value of hot-rolled products between 1997 and 1998. See U.S. International Trade Commission (ITC) dataweb available from <http://dataweb.usitc.gov>; Internet.

2. Because this report focuses on these four countries, potentially market-distorting trade practices of other countries are not discussed in depth.

3. OECD Report from the Directorate for Science, Technology, and Industry Steel Committee: *Developments in World Steel-Making Capacity*, November 3, 1999; Peter F. Marcus and Karlis M. Kirsis, *World Steel Dynamics, Core Report MMM* (September, 1999); “World-Trade Ideals vs. Political Realities,” speech of James F. Collins, advisor to the Steel Manufacturers Association, as reported in *New Steel*, January 1999, available from <http://www.newsteel.com>; Internet, accessed on August 31, 1999; “UN/ECE Warns of a Potential World Overcapacity Build Up in Steel,” April 8, 1997 press release available from the UN/ECE Web site <http://www.unece.org>; Internet, accessed on September 1, 1999; MITI, *Interim Report of the Forum on Structural Problems Related to the Basic Materials Industries* (June 1999), Chapter 1, Section 1.1; “Approach Used to Establish and Monitor Conditions for Financial Assistance,” International Monetary Fund, Letter Report, June 22, 1999, GAO/GGD/NSIAD-99-168, available from U.S. Government Printing Office Web site <http://www.gpo.ucop.edu>; Internet, accessed on September 14, 1999. Other industry experts have also concluded that there is overcapacity in the global steel industry. In their recent report on the Russian economy, the McKinsey Global Institute states: “In the 1970s and 1980s, Japan and Europe undertook aggressive capacity expansion even though their domestic consumption did not grow. Along with this, the breakup of the Soviet Union led to a rapid decrease in demand in the early 1990s. These factors have led to continuing world overcapacity in steel production.” In an accompanying graph, the difference between world capacity and world consumption is approximately 200 million MT. See McKinsey Global Institute, “Unlocking economic growth in Russia,” Steel Section at 4 and exhibit 11. Gordon Geiger, a consultant with T.P. McNulty and Associates, also estimates overcapacity in the 200 million MT range. See “Steel Mill of the Future,” *New Steel*, January 2000. Finally, according to Ed Yardeni, chief economist and managing director of Deutsche Bank Securities North America, “companies that are kept alive by trade protectionism or subsidies” have caused overcapacity in the steel industry. See “Prospering in the Digital Age,” *New Steel*, July 1999. One source that raises a question as to the accuracy of some of the reported capacity figures is Charles A. Bradford, “International Steel Industry Seen Heading Up,” International Steel Special Issue of *American Metal Market*, October 4, 1998, available from <http://www.amm.com>; Internet, accessed on October 7, 1999. Please note that dates of *New Steel* and *American Metal Market* articles cited may not correspond to dates of publication in printed versions.

4. The ruble depreciation occurred in August 1998. Given the approximate three to four month time frame between orders and delivery in the United States, it seems unlikely that Russian producers could have accounted for the depreciation before shipments of hot-rolled steel—Russia’s main steel export during the crisis—to the U.S. virtually ceased in December 1998. Moreover, in interviews for this report, steel analysts and Russian producers did not cite the ruble’s devaluation as having an impact on Russian producers’ pricing practices during the crisis. This stands in stark contrast to the other three major exporting countries—Japan, Brazil, and Korea—where the depreciation in

those countries were commonly mentioned as having had an effect.

5. At the time of the Asian financial crisis, ITA monitored imports other than steel from the affected countries and found few instances of what could be termed surges.

6. In many of the 1992 dumping and countervailing duty cases, the ITC found that the U.S. steel industry had not been injured by steel imports. Regarding the four Section 201 cases, the ITC made affirmative recommendations in all four proceedings. In three of the four, the President imposed relief. In the fourth, the President opted instead for the voluntary restraint agreement program, which covered a broad range of steel products from numerous countries.

7. United States Trade Representative, *2000 National Trade Estimate Report on Foreign Trade Barriers* (Washington, 2000), 195–197.

8. A number of articles in May and June 2000 have noted that price hikes may not hold and that prices are softening: “Another Surge of Imports?” *New Steel*, May 2000, accessed on May 23, 2000; “U.S. HR Coil Import Prices Slipping,” *Metal Bulletin*, May 9, 2000; “Rate Increases Slow Steel Industry More Than Forecast,” *Wall Street Journal*, June 5, 2000, B4; “Stock Correction Weakens U.S. Steel Prices,” *Metal Bulletin*, June 13, 2000; “Tags Slide as Sheet Buyers Bite Back,” *American Metal Market*, June 19, 2000; and “Rush to Destock Dents Stainless Prices,” *American Metal Market*, June 21, 2000. Please note that dates of *Metal Bulletin* articles cited may not correspond to dates of publication in printed versions of *Metal Bulletin*.

## Chapter 2

1. *Import Penetration*: During the first three months of 1998, import penetration stayed near 20 percent. By November 1998, import penetration had climbed to 33 percent. American Iron and Steel Institute (AISI) (Washington D.C.) available from <http://www.steel.org>; Internet.

*Domestic Shipments*: Domestic shipments in the second half of 1998, fell 11 percent compared to first half 1998 levels and were down 9 percent compared to the same period in 1997. Because the effect of the import increases did not occur until the second half of 1998, continuing into 1999, domestic shipments in 1998 only fell 2 percent compared to 1997. Comparing the period, July 1998 through June 1999, to the period, July 1997 through June 1998 shows an 8 percent drop in domestic shipments. AISI.

*Capacity Utilization*: During the first four months of 1998, capacity utilization rates were at or above 90 percent. By November 1998, capacity utilization had fallen below 75 percent. AISI. Capacity utilization rates for a number of specific products sectors show similar sharp declines in capacity utilization rates during the crisis. For example, the information contained in the ITC reports shows a decline in capacity utilization (based on 1997 to 1998 comparisons for hot-rolled steel and most recent semiannual period comparisons to the same period in the prior year for all other products) of 5 percent for hot-rolled steel, 20 percent for cut-to-length plate, 23 percent for structural beams, 32–36 percent for circular seamless stainless hollow products, and 44 percent for small diameter seamless carbon and alloy steel pipe. ITC, *Certain Hot-rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), C-4. ITC, *Certain Cut-to-length Steel Plate from France, India, Indonesia, Italy, Japan and Korea*, Publication no. 3273 (Washington D.C., January 2000), C-4. ITC, *Certain Structural Steel Beams from Germany, Japan, Korea and Spain*, Publication no. 3225 (Washington D.C., September 1999), C-4. ITC, *Circular Seamless Stainless Steel Hollow Products from Japan*, Publication no. 3262 (Washington D.C., December 1999), C-5, C-9. ITC, *Certain Seamless Carbon and Alloy Steel Standard, Line and Pressure Pipe from Czech Republic, Japan, Mexico, Romania and South Africa*, Publication no. 3221 (Washington D.C., August 1999), C-4.

2. Craig Woker, “The Imports Battle: Retreat or Charge Ahead?” *New Steel*, February 1999. Hereinafter, all *New Steel* articles are available from <http://www.newsteel.com>; Internet. Please note that dates of *New Steel* articles cited may not correspond to dates of publication in printed versions of *New Steel*. Figures in net tons were converted to metric.

3. Id.

4. President and CEO of Northwestern Steel Fred Rocchio, discussions between Department of Commerce officials and representatives of the management and workers of Acme and Northwest Steel, and the communities of Riverdale and Sterling, Illinois, “Town Hall Meeting” at Acme Steel, March 29, 2000, Riverdale, Illinois.

5. President & CEO of Acme Metals Steve Bennett and President of Acme Steel Jim Howell, conversation with Department of Commerce officials, “Town Hall Meeting” March 29, 2000, Riverdale, Illinois.

6. Information on 1998 job losses in the steel industry varies. A January to January comparison of steel employment as measured by the Bureau of Labor Statistics (BLS) based on June 2, 2000, revised survey data for SIC 331, shows a decline of 6,600 employees in 1998. Steel employment, as measured by AISI (based on a survey of its membership which does not include most mini-mills or specialty steel producers), fell by 8,600 employees in 1998. BLS

massive layoff data shows 9,550 employees laid off at steel firms in 1998. Massive layoff data does not include layoffs of less than 50 employees or layoffs lasting less than one month.

7. Michael Grunwald, "PA Steel Industry Endures Fiery Blast from Offshore; Leaner, Restructured Plant Still Undercut, Paralyzed by Imports," *The Washington Post*, December 18, 1998, A3.

8. "Steelmakers Continue Layoffs and Capacity Reductions," *New Steel*, December 1998 (Bethlehem Steel layoffs). Conversation with personnel office at Northwestern Steel (Northwestern layoffs).

9. Heather J. Maher, "The Unkindest Cut," ABC News.com, accessed on December 4, 1998.

10. Steel User's Box. Figures on semifinished imports based on Census data. Virtually all imports of semifinished steel is imported for use by U.S. steel companies to manufacture finished steel products.

11. Steel Worker's Box. Employment figures based on BLS data (SIC 331). Demand based on AISI data.

12. Although 1997 was a record year for imports, import penetration only rose slightly because of the strong demand in the U.S. market.

13. Although overall imports from Brazil decreased in 1998, imports of certain products, such as hot-rolled and cold-rolled steel, did increase, and Brazil played an important role with respect to prices in the U.S. market.

14. Chris Adams, "Rising Imports distress U.S. Steelmakers, Industry May Hasten Complaints Against Japan, Russia," *Wall Street Journal*, September 8, 1998, A2.

15. Although predictions regarding U.S. import levels and U.S. import penetration were varied, many analysts believed that U.S. imports would fall in 1998, a belief that continued into 1998.

Organization for Economic Cooperation and Development, *The Steel Market in 1997 and the Outlook for 1998 and 1999* (Paris, 1998), 13. The OECD Outlook for 1998 concluded that, "In the United States, net steel imports should fall by about 10 percent, since the additional capacity installed in 1997 should reduce imports, bringing their share of the American market down from 26.8 percent in 1997 to 25.6 percent in 1998." The OECD Outlook was based on data received prior to March 31, 1998.

Tim Triplett, Brayn Berry, "The State of the Industry," *Metal Center News Online*, May 1998 available from <http://www.metalcenternews.com>; Internet. Please note that dates of *Metal Center News Online* articles cited may not correspond to dates of publication in printed versions of *Metal Center News Online*. President of U.S. Steel Paul Wilhelm noted in May 1998, "The Asian situation has been used as an excuse by a lot of companies for not meeting analysts' earnings estimates." Wilhelm also noted that the currency problems have resulted in the delay or cancellation of numerous projects in Asia that would have added 19.1 million tons of raw-steel capacity and 3 million tons of finishing capacity.

Tim Triplett, "Steel Survival Strategies: Analysts Forecast Downturn in Global Steel," *Metal Center News Online*, August 1998, accessed November 11, 1999. At the opening session of the Steel Survival Strategies XIII conference, on June 23, 1998, World Steel Dynamics' Peter F. Marcus stated that, "The 1998-99 period is on the verge of becoming the most severe cyclical setback for the global steel industry since the mid-1980s," and furthermore, that "the steel industry in 1998-99 may experience a true death spiral because it would lead to capacity reductions, in other words, the death of facilities." According to the reporter, "[The] gloomy global forecast was met with a degree of skepticism by the American steel producers in the audience. And it's no wonder. As of June, the U.S. market was the strongest in the world. U.S. mills, most operating close to capacity, continue to receive booming new orders—although low-price imports are holding down the prices on some U.S. steel grades."

16. Johanna Knapschafer, "How Will Asian Imports Affect U.S. Fortunes?" *Metal Center News Online*, June 1998, accessed on November 22, 1999.

17. Prices are those reported in *Purchasing Magazine's* quarterly series of monthly prices.

18. Comparison of January and December 1998 Nucor (Crawfordsville) price for price for the following product: hot-rolled coil, commercial quality, 46-66" width, .083"-.500" thickness, low carbon. When discussing price it is important to note that large quantities of flat rolled steel, particularly cold-rolled sheet & strip and galvanized sheet are sold on long-term contracts to automakers, which comprise the single largest end use market for flat-rolled steel. The quantities and prices are set on an annual basis and for the most part do not change throughout the year. In conversations with Commerce Department staff, GM officials have indicated that short-term price fluctuations generally do not affect the price GM is paying for steel during the year. Therefore, it is best to examine other types of prices to see the effect of imports surges on the U.S. market.

There are two types of prices that are good indicators of what is happening in the domestic steel market: 1) the spot prices reported in various industry publications; and 2) the Nucor (Crawfordsville) prices for certain flat-rolled steel products. In our price analysis, we have used Nucor prices when examining most flat-rolled products (e.g., hot-rolled and cold-rolled sheet), and spot prices for long products, pipe and tube, and cut-to-length plate. With the exception of cut-to-length plate, the spot prices used in our analysis come from monthly estimates made on a

quarterly basis by the publishers of *Purchasing Magazine*; spot prices for cut-to-length plate were obtained from Peter F. Marcus and Sherly Iwanski, World Steel Dynamics, *Price Track #64* (February 28, 2000).

Nucor (Crawfordsville) prices for certain flat-rolled products were selected because this relatively new Nucor plant employs a cutting edge technology used to produce flat-rolled steel, thin slab casting, and is generally considered to be one of the most efficient and productive steel plants in the world. Also, Nucor, for the most part, does not sell flat-rolled steel to automakers but rather sells mostly to the very price sensitive service center market. During the ITC's investigation concerning certain hot-rolled steel products from Japan, purchasers were asked to list the names of any firms they considered to be price leaders in the certain hot-rolled steel products market during January 1996–December 1998. There was a strong consensus that Nucor was the dominant price leader. See ITC, *Certain Hot-Rolled Steel Products from Japan*, Publication no. 3202, Investigation number 731-TA-807, (Washington D.C., June 1999), II-1.

*Purchasing Magazine* determines marketplace transaction prices for numerous industrial commodities (including metals) on a monthly basis from data collected from mail surveys of buyers, discussions by editors with buyers and other market insiders, and data-collection arrangements with other news-analysis agencies and research groups. The prices are designed to show monthly spot-market purchase order averages for the majority of that month's transactions. (The prices don't include processing or shipping extras; for stainless, they also don't include alloy surcharges.) The geographic designation of Midwest for most commodities pricing is based on an industrial region ranging from western Pennsylvania to eastern Iowa, from central Michigan to southern Missouri. The specifications for the steel mill products used in this report are as follows:

*Wide-flange beams* AISI 36; W 8; 8 inches wide; 5.25 inches thick; 18 pounds

*Reinforcing bars* AISI 615; Grade 60, No. 6; standard length; delivered

*Wire rod* AISI 1016 low-carbon; standard coil, delivered

*Stainless steel sheet* Type 304; cold-rolled sheet; commercial thickness and width

19. For example, AISI quarterly employment figures show little change until fourth quarter 1998.

20. Productivity and U.S. Steel Industry Employment text box. Investment and man hour per ton data taken from American Iron and Steel Institute, *Status Report: The Trade and Competitive Position of U.S. Steel Producers*, (October 1998), 3. Employment data based on Bureau of Labor Statistics data for SIC 331.

21. Morris Goldstein, Institute for International Economics, *The Asian Financial Crisis: Causes, Cures, and Systemic Implications* (Washington, D.C. 1998), 2. While most currencies recovered slightly in early 1998, the rupiah continued to fall, losing 74 percent of its value by mid-1998.

22. *Ibid.*, 3.

23. Karl Jackson ed, *Asian Contagion: The Causes and Consequences of a Financial Crisis* (USA: Westview Press, 1999), 2.

24. Kevin Sullivan, "A Generation's Future Goes Begging; Asia's Children Losing to Destitution," *The Washington Post*, September 7, 1998, A1.

25. *Id.*

26. Philippe Delhaise, *Asia in Crisis: The Implosion of the Banking and Finance Systems* (Singapore: John Wiley & Sons (Asia), 1998), 15, 104.

27. Jackson, 154.

28. *1999 Economic Report of the President*, February 1999, 231. Available from <http://ww3.access.gpo.gov/>; Internet.

29. Jackson, 156, 160.

30. Delhaise, 105.

31. Jackson, 6.

32. S. Sicheua, "The Way Out of the Economic Crisis," unpublished paper (1997) as referenced in Karl Jackson, ed.; *Asian Contagion: The Causes and Consequences of a Financial Crisis* (USA, Westview Press, 1999), 8.

33. Organization for Economic Cooperation and Development, *Asia and the Global Crisis: The Industrial Dimension* (Paris, 1999), 20.

34. *1999 Economic Report of the President*, February 1999, 231.

35. The share of bank lending going to the real estate sector in various countries was as follows: Korea, 15–25 percent; Indonesia, 25–30 percent; Thailand, 30–40 percent; and Hong Kong, 40–55 percent. Goldstein, 8.

36. Jackson, footnote 8, p. 25.

37. *1999 Economic Report of the President*, February 1999, 231.

Some credited this financial system with promoting the Asian economies' high rates of investment and growth. But along with their strengths, relationship-based systems

also possess weaknesses, which the Asian financial crisis has now exposed. Relationship-based systems neglect the information encapsulated in market prices. This information, the product of numerous independent assessments of profitability and risk, possibly becomes more important as economies develop and attractive opportunities for further investment become relatively more scarce.

38. Jackson, 6.

39. Stock market prices had been declining over the past several years in most of the countries as had real estate values putting pressure on banking systems that had relied extensively on property or equity holdings as collateral. In Korea, a series of large bankruptcies in the first six months of 1997 exposed the frailties of the Korean banking sector and the extent to which banks were exposed to the financial well-being of a single company or *chaebol*. In quick succession, Hanbo Steel, Sammi Steel, Jinro Distillery, and the Kia Group went bankrupt bringing down with them a number of major banks, including Korea First Bank, Seoul Bank, and Hanil Bank. The extent of Korea First Bank exposure to Hanbo Steel was phenomenal—Korea First Bank extended loans to Hanbo totaling \$1.3 billion—about the same as the bank's total book value. By the end of 1996, the Korean banking system was on the verge of bankruptcy, if not already technically bankrupt, propped up by lax accounting methods and cross-subsidization within the *chaebols* that masked the extent of the bank's non-performing loans. In fact, Thomson BankWatch, a bank rating agency active in Asia, had been alerting its customers to the problems in the region's banking sector starting in 1994 and 1995. Delhaise, 9–96, 103–111, 229.

40. Stuart D. Goldman, Congressional Research Service Issue Brief, *Russia* (Washington D.C., November 26, 1999), 6.

41. *Ibid.*, 6.

42. *Ibid.*, 7.

43. Based on exchange rates reported by the Federal Reserve (Korea, Japan) and DRI (Indonesia, Thailand).

44. Chief Economist for General Motors Dr. G. Mustafa Mohaterem, Ph.D. conversation with DOC officials at General Motors March 6, 2000, GM Washington D.C. office.

45. See Corinna C. Petry, "Chaparral Revives Reserved-Tonnage Program," *American Metal Market*, June 10, 1997, available from <http://www.amm.com>; Internet, accessed on May 5, 2000. Please note the dates of *American Metal Market* articles cited may not correspond to dates of publication in printed versions of *American Metal Market*. Corinna C. Petry, "Service Centers Outlook '98: More of the Same," *American Metal Market*, January 15, 1998, accessed on May 25, 2000. Frank Haflich, "Wide-Flange Beam Tightness Seen Easing," *American Metal Market*, Service Center Outlook Special Issue, March 30, 1998, accessed on May 25 2000.

46. Director of Fordham University's Industrial Research Institute Father William Hogan and associate director Frank Koelble, phone interview with DOC officials, May 23, 2000.

47. Steel mill inventories rose from roughly 11.5 million MT in autumn of 1997 to slightly above 12 million MT by December 1998, and then to almost 13 million MT in the summer of 1999; little of the increase prior to mid-1999, however, reflected finished steel but, rather, steel in process. See U.S. Census Bureau, *Inventories of Steel Producing Mills: Summary 1999, Series M331J(99)–13 of Current Industrial Reports*, March 2000. U.S. Census Bureau, *Inventories of Steel Producing Mills: Summary 1998, Series M331J(98)–13 of Current Industrial Reports*, March 15, 1999. *Inventories of Steel Producing Mills: April 2000, Series M331J(00)–04 of Current Industrial Reports*, June 2000.

48. U.S. Census Bureau *Inventories of Steel Producing Mills: Summary 1999*, "Series M331J(99)–13 of Current Industrial Reports", March 2000. U.S. Census Bureau *Inventories of Steel Producing Mills: Summary 1998, Series M331J(98)–13 of Current Industrial Reports*, March 15, 1999.

49. "Collins: World–Trade Ideals vs. Political Realities," from a speech made by James F. Collins, who has been vice chairman and president and now is a policy advisor to SMA, at AIIS annual meeting in NYC on November 11 1998, *New Steel*, January 1999, accessed on August 31, 1999.

50. George McManus, "Steel Imports: Do We Need a New Approach?" *Iron and Steel Engineer*, July 1999, 56, stating that "[b]y December [1998], the docks and warehouses were glutted with low priced imported material."

51. Chris Adams, "Rising Imports Distress U.S. Steelmakers, Industry May Hasten Complaints Against Japan, Russia," *Wall Street Journal*, September 8, 1998, A2.

52. According to representatives of the Korean government and industry, the only Korean carbon hot-rolled steel exported to the United States is POSCO steel shipped under long-term contract to its joint venture with USX.

53. The table below shows the impact of these three countries in a number of the major surge product categories. In each of the categories, imports from these three countries account for a majority of the import surge in the United States. In fact, in three categories, cold-rolled steel, rebar, and line pipe, the surge in imports from these countries was so large that it exceeded the overall increase in imports.

<b>Product Group</b>	<b>Net Increase in U.S. Imports 1997–1998 (metric tons)</b>	<b>Increase in U.S. Imports from Japan, Korea, and Russia 1997–1998 (metric tons)</b>	<b>Import Increase from Japan, Korea, and Russia Over Total U.S. Import increase</b>
<i>Total Steel Mill Products</i>	9,401,264	7,129,763	76%
Finished Steel	9,022,490	7,690,081	85%
Hot-Rolled Steel	4,515,274	3,528,111	78%
Cold-Rolled Steel	355,290	485,715	137%
Cut-to-Length Plate	668,349	416,180	62%
Heavy Structural	1,585,173	1,270,203	80%
Rebar	478,900	565,909	118%
Line Pipe	309,952	310,226	100%

A fourth country, Brazil, also played a critical role in the crisis, but not in the form of import surges. Overall steel imports from Brazil fell 4 percent, primarily due to a decrease in semifinished steel shipments. However, imports from Brazil of certain products, such as hot-rolled and cold-rolled steel, did increase in 1998, although not as dramatically as imports from Japan, Korea, and Russia. More importantly, the country played a key role with respect to prices in the U.S. market.

54. Comparison of January and December average unit values for carbon hot-rolled sheet as reported by Census. Unless otherwise noted, import prices used in our price analysis are represented by average unit values obtained from Census or through the ITC's trade data Web site.

55. Based on average import values from Census. With the large dropoff in December imports, prices for hot-rolled steel from Brazil and Japan began to recover slightly. Price comparisons for Brazilian and Japanese hot-rolled prices are based on average unit values for imports in October and November 1998, respectively. December 1998 prices were used for the Russian comparisons. Using January and December 1998 comparisons for all three countries results in price decreases from Brazil, Japan, and Russia of 18 percent, 16 percent, and 27 percent, respectively.

56. Suzanne Christiansen, "Steel Trade Storm Breaks," *Metal Bulletin Monthly*, December 1998, available from <http://www.metalnet.co.uk>; Internet, accessed on November 1, 1999. Please note that dates of *Metal Bulletin Monthly* articles cited may not correspond to dates of publication in printed versions of *Metal Bulletin Monthly*.

57. Adams. The same point was repeated by a number of representatives of service centers and steel distributors in conversations with Commerce Department officials.

58. National Steel was not a petitioner in the Japan investigation.

59. In order to provide effective relief to the industry and U.S. steel workers while addressing particular concerns regarding Russia and Brazil, the Commerce Department negotiated an antidumping suspension agreement with Russia, and antidumping and countervailing duty suspension agreements with Brazil in the hot-rolled steel investigations.

The suspension agreements imposed pricing disciplines upon Brazilian and Russian steel shipments to the United States and set annual import quotas on the products involved that greatly reduced shipments to the United States. The agreements also included moratoria on steel shipments that addressed the injury caused by the earlier surges.

60. ITC, *Certain Hot-Rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), V-15.

61. Adam Ritt, "The Imports Gremlin," *New Steel*, February 1999, accessed on May 2, 2000.

62. Id.

63. The term mini-mill came into general use in the steel industry during the 1960s. Initially, mini-mills were generally considered to be steel companies that: were small, served mostly local markets, produced lower value long products like rebar and light merchant bars, independently owned (*i.e.*, separate from the large integrated mills), and they had the general business philosophy of operating with the lowest costs possible, with minimal capital investment and corporate overhead.

Today, the key characteristic of mini-mills is their use of electric arc furnaces to melt scrap steel, and more recently scrap substitutes like iron carbide and direct reduced iron (DRI), as their means to producing raw steel. For the most part, large integrated steel companies (*e.g.*, U.S. Steel, Bethlehem Steel, LTV) produce raw steel in basic oxygen furnaces from some scrap and from larger quantities of molten iron, the latter produced by combining iron ore and coke in blast furnaces. Christopher Hall, *Steel Phoenix: The Fall and Rise of the U.S. Steel Industry* (New York: St. Martin's Press, 1997), 145-177.

64. *Ibid.*, 145–177.

65. *Id.* Bethlehem Steel, whose corporate logo is a wide flange beam, was the last integrated producer to make the product. By 1997, it had exited the structurals market.

66. Representatives of Japanese steel companies have alleged that “[s]harply lower material costs [in 1998] permitted minimills to slash prices, win new customers, and fill their new mills, faster than would otherwise have been possible, while remaining highly profitable.” They further claim that raw material costs for Nucor and Steel Dynamics “plunged 40 percent” and that correlation between scrap prices and Nucor’s hot-rolled prices demonstrates that the collapse in scrap prices contributed to the subsequent decline in hot-rolled prices. “The Minimill Revolution in Flat-Rolled Steel: Structural Transformation Masquerading as Import Crisis,” attachment to an April 11, 2000 Letter from William H. Barringer, Willkie Farr & Gallagher, to Roland L. MacDonald (Director for Policy and Analysis, Import Administration, International Trade Administration, U.S. Department of Commerce, 1, 23–24.

67. The decline in import prices of hot-rolled steel from Brazil did not get underway until the spring of 1998, several months later than the price declines from Russia and Japan.

68. ITC, *Certain Hot-rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), 15.

69. Based on Number 1 Heavy Melt Steel (Pittsburgh) scrap prices for 1997 and 1998. The 40 percent reduction in 1998 scrap prices mentioned earlier (*supra* note 66) is based on a comparison of January 1998 and January 1999 prices for the same product category.

70. Nucor Corporation, 1998 Annual Report, 12.

71. Nucor Corporation 1998 10-K405 report. U.S. scrap prices did decline throughout 1998, but an analysis of quarter-to-quarter trends for 1997 versus 1998, confirms that the annual trends cited above were not anomalous and that Nucor’s raw material costs were little changed during 1998. For example, Nucor notes that “[t]he average price of raw materials decreased close to 2% from the third quarter of 1997 to the third quarter of 1998, and increased about 2% from the first nine months of 1997 to the first nine months of 1998.” See Nucor Corporation Third Quarter 1998 10–Q report.

72. The ITC staff report for Certain Hot-Rolled Steel Products at page V-1 notes that U.S. producers reported that raw material costs account for about 50 percent of the cost of hot-rolled steel products. According to the questionnaire responses received by the ITC between January 1996 and December 1998, prices for iron ore, the principal raw material for BOF steel making, declined only slightly while prices for scrap, the principal raw material for EAF steel making, were “more volatile.” However, the ITC staff report does note that “most U.S. producers reported that changes in raw material costs have had no impact on their sales prices for hot-rolled carbon steel products, and that prices are based largely on market demand factors.” In fact the Commission itself stated in its determination that the falling domestic prices in 1998 were not simply the result of falling costs since the decline in the unit cost of goods sold by domestic producers was “dwarfed by the decline in the domestic industry’s average unit values.”

#### *Causal Relationship Between Scrap and Steel Prices*

A number of statements by industry members and analysts illustrate that complexities behind the correlation between scrap and steel prices.

Peter Marcus (Managing Partner, World Steel Dynamics), in “How Do Scrap Prices Compare with Mini-mill Stocks,” *Weekly Steel Prospective*, August 12, 1999, accessed from *American Metal Market* Web site on July 3, 2000, noted that “[s]crap prices tend to be high when apparent demand for steel is high.”

Vice President of marketing and sales at Midrex Reduction Corp. Frank Griscom III stated, “[S]crap and steel prices now often move independently,” as quoted in Tom Bagsarian, Craig Woker, Mike Greissel, and Adam Ritt, “Riding the Market’s Roller Coaster,” *New Steel*, January 1999, accessed on May 4, 2000.

Vice President of purchasing and transportation at GS Industries Ron Mulhauser, said, “As the global steel-product-market recovers, [U.S.] scrap exports will increase, and prices will recover for scrap and substitutes,” as quoted in Tom Bagsarian, Mike Greissel, Adam Ritt, and Craig Woker, “Tough Times for Alternative Iron,” *New Steel*, July 1999, accessed on June 6, 2000.

El Hoefter, “A Sea Change in the Metallic Markets,” *New Steel*, January 2000, accessed on June 12, 2000. “In the past, the level of domestic steel production drove the domestic scrap market: Scrap supply simply responded to steelmaking demand. Although domestic steel production remains the primary driver in this market, other factors, especially the strength of the U.S. dollar and the stability of foreign economies, now are major considerations.”

Joseph A. Rooney (Rooney Associates Inc.), “Scrap Tags on Rise or Have They Capped?” from International Scrap Special Issue of *American Metal Market*, May 31, 2000, accessed on June 6, 2000.

Continued good production should have worked down the scrap inventory, and buying should be ready to resume. As buying resumes, will prices pick up where they left off and continue to ramp up, or have new forces come into play that have possibly

capped the price of scrap at least for the short term? ... While not all agree with the numbers, we are at an apparent steel consumption level of about 125-million tons, which is an indication of a very healthy steel industry at least from a demand and production point of view. In the past, this would have been a signal for escalating scrap prices. However, right now, there are a number of adverse forces working simultaneously to suppress the price of metallics. In addition, it is reported that traditional scrap supplies are abundant. The U.S. prices as reported in AMM have been flat, and European Union ferrous scrap exporters are reporting a prolonged lull in business.

Michael Marley, "Traders Seen More Optimistic About Ferrous Market," from Ferrous & Nonferrous Scrap Special Issue *American Metal Market*, November 16, 1999, accessed on June 12, 2000. "The scrap market has turned around, said one Midwest scrap industry executive, because the steel market has improved."

Walter Carter (DRI/McGraw Hill), "Sluggish Outlook for Many Steel Sectors," from Special Issue of *American Metal Market*, January 3, 1997, accessed on June 12, 2000. "In the longer term, scrap prices will be pushed up by the growing demand for high-quality scrap, but restrained by low steel prices, expanding supplies of DRI products and pig iron supplies from both the domestic and world market."

73. Although not a petitioner in the hot-rolled steel cases, Nucor spoke out against unfairly traded imports of hot-rolled steel and in support of the petitions. In addition, Nucor, along with two other mini-mills, Chaparral Steel, and Northwestern Steel, filed antidumping and countervailing duty petitions on imports of structural beams from Germany, Japan, Korea, and Spain. In its preliminary determination, the ITC found no injury from imports of structural beams from Germany and Spain.

74. ITC, *Certain Hot-rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), 19.

75. *Id.*

76. Chief Economist for General Motors, Dr. G. Mustafa Mohaterem, Ph.D. conversations with DOC officials, March 6, 2000, at GM's Washington office.

77. *Id.*

78. "GM Strike Could Impact Third Quarter," *Metal Center News Online*, August 1998, accessed on November 11, 1999.

In the cold-rolled steel investigations, the ITC determined that the GM strike contributed to the price declines in cold-rolled steel. The relatively larger share of cold-rolled steel purchases in GM's overall purchases (80 percent of GM's purchases are cold-rolled or corrosion-resistant steel) may explain the very different weight given to the GM strike by the ITC in its injury analysis in the cold-rolled investigation versus its analysis in the hot-rolled steel investigation. See ITC, *Certain Cold-rolled Steel Products from Argentina, Brazil, Japan, Russia, South Africa, and Thailand*, Publication no. 3283 (Washington D.C., March 2000), 23–24.

79. According to Dr. G. Mustafa Mohaterem, Ph.D., Chief Economist for General Motors, steel purchases by the U.S. operations of GM and its suppliers declined by approximately 620,000 MT as a result of the GM strike in mid–1998. He estimates that only about one-third of this loss was recovered through increased purchases after the strike, leaving U.S. steel mills with a permanent loss of roughly 400,000 MT.

80. In addition, the effects of the fifty-four-day strike at GM in mid–1998, were reportedly offset to some degree by various other factors including (1) electric-power outages in the Midwest and the mid-Atlantic that decreased steel production for some producers regardless of the strike; (2) a backlog of orders during the early part of the strike; and (3) an expected two-week production outage at GM that was scheduled to take place during the same period as the strike. See "GM Strike Could Impact Third Quarter," *Metal Center News Online*, August 1998, accessed on November 11, 1999. See also "GM Strike Ends; Flat-Rolled Concerns Persist," *New Steel*, September 1998, accessed on September 1, 1999, citing statements of Kenneth Hoffman, a Prudential Securities analyst.

81. ITC, *Certain Hot-rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), 16.

82. Father Hogan and Frank Koelble stated that the GM strike played only a minor role in the steel crisis of 1998. Director of Fordham University's Industrial Economic Research Institute Father William Hogan and associate director Frank Koelble, phone interview, May 23, 2000.

83. Based on confidential discussions between Department of Commerce officials and industry representatives and review by Commerce Department officials of proprietary information.

84. "Nucor-Yamato, Northwestern, Chaparral plan to file trade case," *New Steel*, May 1999, accessed February 21, 2000.

85. A concurrent subsidy case against Brazil was also affected by the negative ITC determinations.

86. In making its determination of "no material injury by reason of subsidized and LTFV [dumped] imports" the

ITC considered numerous factors. One particularly significant factor was the issue of captive production. The domestic industry had argued that the portion of its production that was sold to joint ventures (for which the original producer had a stake) and other related entities should be considered “captive production” as per 19 U.S.C. section 1677(7)(C)(iv) and not be considered in determining market share and the factors affecting financial performance. The ITC rejected this claim. The inclusion of this “captive production” in the ITC’s analysis increased the size of the U.S. cold-rolled steel market and so, greatly reduced the calculated market share held by imports. The “diminished” presence of imports in the U.S. market, in turn, resulted in diminished import effects throughout the remainder of the ITC’s analysis.

Other conditions of competition the ITC used in making its “no injury” determination include (1) strong demand for cold-rolled steel products throughout 1996–1999, (2) lack of substitutability, (3) the importance of non-price considerations to purchasers, particularly long-term contract sales to large end users like automakers, (4) the dominance of the U.S. market by domestic steel producers, (5) domestic production capacity increases during 1996–1999, (6) lack of competition between imports and domestically produced products due to a large volume of internal transfers and contractual sales, (7) hot-rolled, cold-rolled, and galvanized prices have tended to track each other closely over time, (8) significant productivity gains by U.S. producers, and (9) the existence of an agreement between the United States and Russia signed on July 12, 1999, which limits imports of cold-rolled steel to half the level of 1998 imports. With respect to the price effects of cumulated imports, the ITC determined that while underselling existed throughout the period of 1996–99, the persistent price gap between subject imports and domestic prices was largely due to various differences between the domestic and imported products or sellers of those products. The ITC determined that the decline in domestic prices in 1998 and 1999 reflected a number of competitive conditions in the market and that the contribution of the relatively small volume of subject imports in the overall U.S. cold-rolled market was not material. The two most important factors the ITC considered in this regard were the increased competition from U.S. mini-mills, which were enjoying a competitive advantage due to declining scrap prices, and the strike at General Motors Corp. (GM) that lasted from June 5, 1998 to July 30, 1998, which resulted in 685,000 net tons of flat-rolled steel products (mostly cold-rolled and galvanized) not being purchased by GM or its suppliers.

87. See ITC, *Certain Cold-Rolled Steel Products from Argentina, Brazil, Japan, Russia, South Africa, and Thailand Final Report*, Publication no. 3283 (Washington D.C., March 2000), 23. As discussed previously, the ITC did not apply the captive production provision of the law in making its cold-rolled determinations and compared cold-rolled steel imports to both domestic merchant sales, domestic sales to related companies and joint ventures for further processing, and internal transfers for further processing within the company. The ITC’s decision meant that cold-rolled imports were examined within the context of this larger universe which diminished the impact of imports in the ITC’s analysis.

The relatively large share of cold-rolled steel purchases in GM’s overall purchases may explain the very different weight given to the GM strike by the ITC in its injury analysis in the cold-rolled investigation versus its analysis in the hot-rolled steel investigation.

88. Various other factors, outside the GM strike, including continued streamlining of purchasing by manufacturers and GM’s new joint venture regional steel distribution center, were also cited as reasons for the struggling of such firms See Timothy W. Triplett, “Trends in 1998 Point to Tougher 1999,” *Metal Center News Online*, December 1998, accessed on November 19, 1999.

89. In the ITC’s injury investigation on cold-rolled steel, 10 of 19 U.S. steel producers and 20 of 33 importers reported that the GM strike had a significant effect on the cold-rolled market in 1998, temporarily reducing demand and causing an oversupply of cold-rolled products. See ITC, *Certain Cold-Rolled Steel Products from Argentina, Brazil, Japan, Russia, South Africa, and Thailand Final Report*, Publication no. 3283 (Washington D.C., March 2000), 24.

90. Christopher Plummer, managing director of Feronomics, Inc. in “Hartquist, Importer Spar Over Specialty Imports at Forum,” *New Steel*, May 1998, accessed on May 6, 2000.

The same sentiment was echoed by others in the industry. “It’s a strange market,” says Fred Mason, general manager at Stainless Sales Corp., Chicago. “There’s a huge demand and an even bigger supply. But prices are down.” “It’s a sad story. Profits and margins are down, but consumption of stainless is good,” concurs James Norton, president and chief operating officer, Washington Specialty Metals, Buffalo Grove, Ill. Norton chairs the specialty metals division of the Steel Service Center Institute, Cleveland.” “Actually, the market is at record-high levels,” says Gene Salvadore, president and chief executive officer of J&L Specialty Steel. “Without imports, U.S. producers would be able to meet all domestic demand, but imports have driven domestic producers to reduce their prices.” See Victoria Vass, “Stainless Market: Sparkling Demand Dulled by Weak Pricing,” *Metal Center News Online*, July 1998, accessed on November 22, 1999.

91. Between 1997 and 1998, the Korean won fell 32 percent against the U.S. dollar. A comparison of the average quarterly rate for the third quarter of 1997 and the third quarter of 1998 also shows a 32 percent depreciation of the won against the U.S. dollar. Because Korean steel producers import significant amounts of dollar-denominated inputs, the effects of the depreciation are offset somewhat by increased raw material costs in won terms.

92. ITC, *Certain Stainless Steel Sheet and Strip from France, Germany, Italy, Japan, The Republic of Korea, Mexico, Taiwan, and the United Kingdom Final*, Publication no. 3208 (Washington D.C., July 1999), 17.

93. The cases against the Czech Republic and Macedonia (FYROM) were terminated following negative preliminary injury determinations by the ITC.

94. The information concerning trading companies was obtained through interviews with the American Institute for International Steel, Inc.; the U.S. Government Affairs Committee of the Steel Service Center Institute (“SSCI”); several trading companies (representing a wide range of sizes and affiliations); and several service centers (also representing a wide range of sizes and affiliations). In addition, the Department of Commerce issued a voluntary questionnaire to the SSCI for distribution to its members. Three service centers responded to this questionnaire.

95. Although most traders stated that changing their operations from one market to another would take one to two months, one trader stated that it would take only two to three weeks.

96. A U.S. service center stated that low profit margins is one reason why trading companies do not individually increase the volatility of prices. This service center did not comment on the effect of trading companies in aggregate on price levels.

97. According to one U.S. service center, Japanese mills lowered their prices to the same level as Russian prices in 1998, but did so because they had to offer huge incentives to persuade service centers to add to their already large inventories. Service centers needed a large incentive to buy more steel because they had to be compensated for the risk of carrying large inventories, which rises with the number of months of inventory kept on hand. For example, the service center stated that if there is seven months of inventory on hand, the price must be discounted enough to compensate the service center for (1) the inventory costs required to store seven months of inventory and (2) the risk that market prices could decline over the next seven months and erode the value of the inventory. Regarding the argument made by some observers that Japanese or Russian mills were out of touch with the market conditions in the United States, this service center stated in its questionnaire response that “the idea that foreign producers ... are not wise to the [U.S.] market is nonsense.”

98. The Japanese trader provided a hypothetical example. Assume that a U.S. customer places an order for Russian steel in January and agrees to pay the prevailing spot market price of \$350/ton. At the same time, Japanese steel was being offered at \$400/ton because of its higher quality. The customer takes delivery of the Russian steel in April and pays the Russian price of \$350/ton. Assume that the market has collapsed over the succeeding four months and that both Japanese and Russian spot prices drop by \$40/ton. In April, the customer places a second order of steel, this time for Japanese steel, and agrees to pay the April Japanese spot price of \$360/ton. Thus, if the customer compares the January Russian spot price (which was actually paid to the trading company upon delivery in April) to the April Japanese spot price, it may appear to the customer that Japanese steel is being offered at Russian prices.

99. George Mcmanus, “Steel Imports: Do We Need a New Approach?” *Iron and Steel Engineer*, July 1999, 56.

100. President of Acme Steel Jim Howell, conversation with Department of Commerce officials, “Town Hall Meeting,” March 29, 2000, Riverdale, Illinois.

101. Id.

102. Operating income data was taken from the following ITC injury reports: *Certain hot-rolled steel products from Japan*, Publication no. 3202, June 1999, *Certain Cold-Rolled Steel Products From Argentina, Brazil, China, Indonesia, Japan, Russia, Slovakia, South Africa, Taiwan, Thailand, Turkey, and Venezuela*, Publication no. 3283, March 2000, *Certain Stainless Steel Sheet and Strip from France, Germany, Italy, Japan, Korea, Mexico, Taiwan, and the UK*, Publication no. 3208, July 1999, *Circular Welded Carbon Quality Line Pipe*, Publication no. 3261, December 1999, *Certain Steel Wire Rod*, Publication no. 3207, July 1999, and *Structural Steel Beams*, Publication 3225—preliminary report, September 1999.

Operating income for CTL plate producers was \$135 million in 1998, an increase of 60 percent compared to 1997 operating income of \$85 million. However, operating income in the first half of 1999 fell to -\$63 million. ITC, *Certain Cut-to-Length Plate from France, India, Indonesia, Italy, Japan, and Korea*, Publication no. 3273, January 2000.

As reported by AISI (based on companies covering about 70 percent of domestic shipments) net income (adjusted for extraordinary loss/income) was as follows: 1998, \$715 million; 1997, \$1,131 million; 1996, \$449 million; 1995, \$1,550 million; and 1994, \$1,323 million.

103. Information included in the text box on Weirton, W.V., comes from the town’s Web site, the Stand Up for Steel Campaign Web site, newspaper articles, and articles in *New Steel*.

104. Harry Thuedaus was recently recalled to work at Acme. Conversation with Gerald Shope, Vice President for Personnel at Acme Steel on June 8, 2000.

105. President of Local 1657, Bill Alexander conversations with Department of Commerce officials at “Town Hall Meeting” March 29, 2000, Riverdale, Illinois.

106. Mayor of Sterling, Illinois Ted Aggen, conversations with Department of Commerce officials at “Town Hall Meeting” March 29, 2000, Riverdale, Illinois.

107. 6,240 steel workers were approved for trade adjustment assistance. Does not include workers in related industries such as iron ore, taconite or further manufactured steel products. Fax from Don Beale, Department of Labor dated March 7, 2000.

108. Although workers at Nucor did not face layoffs, they did see significant reductions in their paychecks. According to Mike Parrish, Vice President/General Manager with Nucor Hickman:

Because of the slowdown, Nucor Hickman employees’ bonuses have been cut roughly in half. The bonuses often account for about two-thirds of a paycheck. It’s painful because we are all on incentive bonuses based on productivity or profits. But we’re not laying off anybody, and that’s the key thing.

“Consolidation, Restructuring, and Imports Lead to Layoffs and Production Cutbacks, Steelmakers Say,” *New Steel*, October 1998, accessed on September 1, 1999.

109. Steel imports fell sharply in December, in response to the early critical circumstances decision in the hot-rolled steel investigations. This fall in imports was not known until the release of the preliminary steel statistics in late January.

## Chapter 3

### 3.1 Russia

1. Russian President Boris Yeltsin’s annual address to the Federal Assembly, “Russia on the Threshold of Centuries” (March 30, 1999) quoted in Clifford Gaddy and Barry W. Ickes, “Stability and Disorder: An Evolutionary Analysis of Russia’s Virtual Economy” (prepared for a study entitled Russia in the 21st Century organized by the Berkeley Program in Post-Soviet Studies for the Carnegie Corporation, November 1999), 1. Barry W. Ickes home page available from <http://econ.la.psu.edu/~bickes/index.htm>; Internet, accessed March 7, 2000.

2. Andrew Kotas, “Perspectives on the Evolution of Steel Consuming End-Use Industries in Russia,” presentation to the Adam Smith Institute (London, February 24, 1998).

3. Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics Monitor Report, *Russian Steel: Not to be Underestimated* (Paine Webber, April 1997), 6.

4. Theoretically, as the command economy was moving towards a market economy, steel consumption may have gone down, in part, due to the more efficient use of steel inputs as downstream consumers increasingly reacted to market pricing signals.

5. InfoMine Research Group, *Market Analysis Research of the Russian Steel Industry*, prepared for the U.S. Department of Commerce (Moscow, January 2000), 21. [Hereinafter referred to as InfoMine-Russia]

6. Central Intelligence Agency, *The World Fact Book 1999*, CIA Web site available from <http://www.odci.gov/cia/publications/factbook/index.htm>; Internet, accessed April 2000.

7. Marcus and Kirsis, “*Russian Steel*,” 5.

8. Representative of Safin GmbH, telephone interview by U.S. Embassy officials, June 2000.

9. Marcus and Kirsis, “*Russian Steel*,” 5

10. Metal Bulletin Research Ltd. and InfoMine, *A Profile of the Steel Industry in the CIS* (December 1997), 8; InfoMine-Russia, 22. [Hereinafter Metal Bulletin Research Ltd. and InfoMine-CIS]

11. *Ibid.*, 21.

12. Electric locomotives, diesel engines, goods vans, coaches, combines, forge-and-extruding machines, metal-cutting machine tools, large electric machines, electric engines of alternative current, tractors, tractor trailers, trucks, passenger cars, scrapers, buses, bulldozers, excavators, tower cranes, graders, rolling bearings. *Ibid.*, 10.

13. *Ibid.*, 10.

14. International Iron and Steel Institute, *Steel Statistical Yearbook 1998*, (Committee on Economic Studies, Brussels, December 1998), 25–27.

15. U.S. Department of Commerce estimate derived from: Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Global Steel Mill Product Matrix: 1986 to 1998 2010 Forecast Core Report NNN* (Englewood Cliffs, Nj, January 2000), 17; Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Global Steelmaking: Supply/Demand*

*Outlook, Core Report VV* (Paine Webber, May 1994), 343–345; Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Global Steelmaking: Supply/Demand Outlook, Core Report III* (Paine Webber, September 1998), 6–45, 6–47; Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Global Steelmaking: Supply/Demand Outlook 1999 Update, Core Report MMM* (September 1999), 5–7, 5–21, 5–22; Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Russia–1994 Update, Overcoming Crisis, Monitor Report*, (August 1995); InfoMine-Russia; Rating Agency “Ekspert PA,” *Russian Metallurgy*, Part 1–*Ferrous Metallurgy* (Moscow, 1999).

16. President of the Miners and Metallurgical Workers Union of Russia Mikhail Tarashenko stated that, although there is attrition within the Russian steel workforce, there have been no layoffs. Mikhail Tarashenko, interview with Department of Commerce officials, February 15, 2000, Moscow. It should be noted however, that there is significant hidden unemployment in Russia (e.g., people technically employed by a company but who do little or no work for the company). Also Director of the Department of Metallurgy within the Ministry of Economy of the Russian Federation Leonid Shevelev, interview by Department of Commerce officials, December 14, 1999, Moscow.

17. McKinsey Global Institute, *Unlocking Economic Growth in Russia* (Moscow, October 1999), Steel Section 2–3, available from <http://www.mckinsey.com>; Internet, accessed December 1999; Marcus and Kirsis, “*Russian Steel*,” 41.

18. Marcus and Kirsis, *Core Report NNN*, 3–156, 3–157.

19. United Nations, Economic Commission for Europe, “UN/ECE Warns of a Potential World Overcapacity Build Up in Steel,” (April 8, 1997) press release and “New Steel-Making Capacity Growing Faster than Expected,” (August 5, 1997) press release, available from <http://www.unece.org>; Internet, accessed on April 19, 2000.

20. McKinsey Global Institute. Synthesis and Implications section, Exhibit 17.

21. Marcus and Kirsis, “*Russian Steel*,” 6; Marcus and Kirsis, *Core Report NNN*, 3–157.

22. Marcus and Kirsis, *Core Report NNN*, 3–156, 3–157; See also McKinsey, Steel section, Exhibit 3.

23. Marcus and Kirsis, *Core Report NNN*, 3–24, 3–25, 3–96, 3–97, 3–144, 3–145.

24. InfoMine-Russia, 17.

25. Economist Intelligence Unit, Country Reports: Russia, March 1, 2000, 44.

26. Andrew M. Kotas and Roger F. Price, *Restructuring of the Ferrous and Non-Ferrous Metal Sectors of Central Europe—A Review of the Progress Made During the 1990's and of the Challenges Ahead* (Beddows and Company, 2000), 8, footnote 1 defines “regions” as Western Europe, Eastern Europe, former USSR, North America, South America, Asia, and other.

27. Kotas and Price, 2, 8.

28. Svetlana Smirnova, United Financial Group, *Severstal: Steel the Top Choice* (Moscow, November 18, 1998), 54.

29. European Bank for Reconstruction and Development, *Transition Report 1999: Ten Years of Transition* (London, 1999), 167.

30. Rose Brady, *Kapitalizm: Russia's Struggle to Free its Economy* (Yale University Press, June 1999), 10, 29–30.

31. *Ibid.*, 30.

32. *Ibid.*, 37.

33. *Ibid.*, 36–37.

34. Clifford Gaddy and Barry Ickes, “Russia’s Virtual Economy,” *Foreign Affairs*, September-October 1998, 53–67.

35. Joseph R. Blasi, Maya Kroumova, Douglas Kruse, *Kremlin Capitalism; Privatizing the Russian Economy* (Cornell University Press, 1997), 41.

36. InfoMine-Russia, 17; United Financial Group Equity Analyst Mikhail Seleznev, interviewed by Department of Commerce officials, February 10, 2000, United Financial Group offices, Moscow.

37. European Bank for Reconstruction and Development, *Transition Report 1999*, 110.

38. 1990 production data: “Uncertain Future for Russian Steel,” *Metal Bulletin Monthly*, July 1994, 17; 1991–1994 data, Marcus and Kirsis, *Core Report VV*, 343–345; 1995–1996 data, Marcus and Kirsis, *Core Report III*, 6–45, 6–47; 1997–1998 data, Marcus and Kirsis *Core Report MMM*, 5–7, 5–21, 5–22; Marcus and Kirsis, *Russia–1994 Update*, 36–39; InfoMine-Russia; Ekspert.

39. Metal Bulletin Research Ltd. and InfoMine-CIS, 4.

40. S. Z. Afonin, Chairman of the Committee of the Russian Federation for Metallurgy, “The Federal Program on Technical Re-Equipment and Development of Metallurgy of Russia (1993—2000),” approved by the Resolution of the Government of the Russian Federation (January 24, 1994) [Hereinafter 1993 Steel Development Plan], 4–6.

41. European Bank for Reconstruction and Development, *Transition Report 1999* (Paris, 1999) 110, 167.

42. Organization for Economic Cooperation and Development News Release, “Co-operation between OECD and Russia and Ukraine in the Steel Sector” (Paris, December 21, 1998), 1.

43. European Bank for Reconstruction and Development, *Transition Report 1999*, 167; Andrew M. Kotas and

Frank Markus, *Successes and Failures in the Restructuring of the Central & East European Steel Industry in the 1990's: A Review of Some Lessons Learnt*, paper presented to the Slovak Metallurgical Society, Metallurgical East-West '99 Conference (Beddows and Company, November 1999), 8.

44. Andrew M. Kotas and Frank Markus, 3–4.

45. InfoMine-Russia, 68, 69; Magnitogorsk Iron and Steel Works First Deputy Director Andrei A. Morozov, interviewed by Department of Commerce officials, February 14, 2000, Magnitogorsk .

46. Thane Gustafson, *Capitalism Russian-Style* (Cambridge: Cambridge University Press, 1999), 223.

47. PlanEcon, Inc., *Review and Outlook for the Former Soviet Republics* (Washington, D.C., October 1998) 24. Cited in Gustafson, 223.

48. Gustafson, 223.

49. Kotas and Markus, section 5, Foreign Involvement.

50. Tarasenko interview; Shevelev interview.

51. European Bank for Reconstruction and Development, *Transition Report 1999*, 137, discusses how companies with “soft budget constraints” (e.g., payment arrears and ineffective bankruptcy rules) “can persist in the use inefficient use of resources, including excessive employment, and *can sell products at below cost*” emphasis added.

52. Afonin.; 1993 Steel Development Plan, 21.

53. Organization for Economic Cooperation and Development, Note by the Government of the Russian Federation for the Workshop on the Situation in the Steel Industry in the NIS “Financing the Restructuring of Russian Ferrous Metallurgy,” OECD Document Number CCNM/NIS/DSTI(99)49 (Paris, October 25, 1999), 2.

54. L. N. Shevelev, “Ferrous Metallurgy News in Russia and Abroad,” Part 1, Ferrous Metallurgy, Release 1–2, 1999, 6.

55. Shevelev interview.

56. Magnitogorsk Iron and Steel Works First Deputy Director Andrei A. Morozov, interviewed by Department of Commerce officials, February 14, 2000, Magnitogorsk .

57. Presidential decree “On Measures of Government Support for the Upgrading of the Equipment at the MMK” (1996); Metal Bulletin Research Ltd. and Infomine-CIS, 26–27; Magnitogorsk Iron and Steel Works interview.

58. Leonid N. Shevelev, *The Current Situation in the Russian Iron and Steel Industry and Outlook up to 2005*, presentation to the Steel Survival Strategies XIII conference (New York, June 23–24, 1998), Table 4.

59. Afonin.; 1993 Steel Development Plan, 17.

60. European Bank for Reconstruction and Development, *Transition Report 1999*, 259.

61. Gaddy and Ickes, “Stability and Disorder,” 4–5.

62. Gustafson, 220.

63. Seleznev interview.

64. National News Service Web site, March 31, 2000, 3:58 pm press release available from <http://www.nns.ru/> chronicle; accessed April 2000, in Russian.

65. This is the name of a popular book in Russia by Yuriy Olesha and a movie, in which a fictitious city was ruled by a trio of ruthless and fat dictators.

66. InfoMine-Russia, 28.

67. McKinsey, Steel section, 38, Exhibit 26. Given the abundance of energy resources in Russia, market energy prices in Russia, in theory, would tend to be lower than world prices.

68. Alison Graham and Oleg Timchenko, United Financial Group, *Russian Regional Energos: Not as Cheap as They Seem* (Moscow, February 15, 1999), 1, 25.

69. Interfax Metal and Mining Report for October 16, 1998, N42 (347); FBIS.

70. Konstantin Vorobyev, “The Exclusive Tariff Code: Several Narrow-Minded Questions to Several Departmental Documents,” *Moscow Rossiyskaya Gazeta*, FBIS, February 18, 2000. Based on discussions with U.S. Embassy officials in Moscow, Russian rail freight rates are based on a four-tier structure based on the *value* of the good shipped. This may provide some advantages to Russian steel producers, particularly for low-value input shipments.

71. The World Bank Group, *Russia—Coal Sector Restructuring... Implementation Assistance Project (IAP)*, (May 17, 1996), 1. The Russian coal industry has undergone significant restructuring, including the closure of mines and the laying-off of workers.

72. InfoMine-Russia, 28.

73. Marcus and Kirsis, “*Russian Steel*,” 32.

74. Organization for Economic Cooperation and Development, *Cooperation between OECD and Russia and Ukraine in the Steel Sector* (Paris, December 21, 1998).

75. Svetlana Smirnova, United Financial Group, *Severstal: Steel the Top Choice* (Moscow, November 18, 1998), 41.
76. Gaddy and Ickes, "Russia's Virtual Economy," 54, 56.
77. Marshall I. Goldman, "The Cashless Society," *Current History*, October 1998, 319.
78. Gaddy and Ickes, "Russia's Virtual Economy," 61–62.
79. Id.
80. Report of the Interdepartmental Balance Commission, "Crisis of Payments" (1998) quoted in Gaddy and Ickes, "Russia's Virtual Economy," 56.
81. For simplicity, the term "barter" is used in this report to describe not only goods-for-goods transactions, but other nonmonetary settlements such as debt sales, swaps, roll-overs, promissory notes (*veksels*), and tax offsets. Sources for text box: International Monetary Fund, Russian Federation: Recent Economic Developments—*Country Report No. 99/100*, (September 1999), 142–143; "Chelyabenergo, Steel Mills Barter with Tractor Maker," Interfax Mining and Metals Report (Moscow, October 30, 1998).
82. The New Generation, Russian Economic Barometer (November 1999) available from [http://www.newgen.org/reb/e\\_reb.htm](http://www.newgen.org/reb/e_reb.htm); Internet, accessed January 2000.
83. Simon Commander and Christian Mumssen, European Bank for Reconstruction and Development *Understanding Barter in Russia*, working paper No. 37 (December 1998), 4–6, 9, 11, 16–19, 24–26.
84. Id.
85. David Woodruff, *Money Unmade: Barter and the Fate of Russian Capitalism* (Ithaca: Cornell University Press, 1999), 5.
86. *Ibid.*, preface xiii, xiv.
87. "Russian Economics: Fissure Finance," review of *Money Unmade: Barter and the Fate of Russian Capitalism*, David Woodruff, *The Economist*, September 18, 1999, 5.
88. Ministry of Economy, *Development Strategy until 2005*, 1.
89. McKinsey, Steel section, 14; InfoMine-Russia, 30.
90. McKinsey, Steel section, 10, 15, 16.
91. *Ibid.*, 13.
92. Sergei Guriev and Barry Ickes, "Barter in Russian Enterprises: Myths vs. Empirical Evidence," *Russian Economic Trends Quarterly* (The Centre for Economic Reforms, 1999).
93. Gaddy and Ickes, "Russia's Virtual Economy," 61.
94. Id.
95. Goldman, "The Cashless Society," section titled Tires, Assassins, and Tight Money.
96. Stockholm Institute of Transition Economics and East European Economies, *Russian Economic Trends* (March 2000), available from <http://www.hhs.se/site/ret/ret.htm>; Internet; accessed March 22, 2000. [Hereinafter Stockholm Institute—*Russian Economic Trends*]
97. International Monetary Fund, *Russian Federation: Recent Economic Developments* (IMF Staff Country Report No. 99/100, September 1999), 140 and footnote 75 on page 140.
98. Stockholm Institute—*Russian Economic Trends*
99. Id.
100. Erik Berglof and Romesh Vaitilingam, eds., Centre for Economic Policy Research, *Stuck in Transit: Rethinking Russian Economic Reform* (London, November 1999), 38.
101. Rating Agency "Ekspert PA," *Russian Metallurgy*, Part 1—*Ferrous Metallurgy* ("Ekspert"), Chapter 1.4. Moscow, 1999. 24,990 million rubles at Rb20.65:\$1 (December, 1998 official end of month exchange rate).
102. Id.
103. Graham and Timchenko, 17.
104. *Ibid.*, 26.
105. Ekspert, Chapter 1.4. 17,255 million rubles at Rb20.65:\$1 (December, 1998 official end of month exchange rate).
106. McKinsey, Synthesis and Implications section, Exhibit 29.
107. Gustafson, 49. According to First Deputy Finance Minister Sergei Shatalov, tax breaks cost the state budget \$20 billion a year; "In Brief: Tax Breaks Cost \$20 Bln," *The Moscow Times*, June 27, 2000.
108. Sergei Kuprianov, Russia Money Equity, Research, *Company Analysis: Magnitogorsk Metallurgical Combine*, (October 27, 1996), section 9.
109. Magnitogorsk Iron and Steel Works interview.
110. Ekspert, Chapter 1.4., 230, 243, 258, 344.
111. Shevelev, The Current Outlook, 5; Magnitogorsk Iron and Steel Works interview.
112. See *eg.*, Louis Uchitelle, "Russia's Rust Belt—A Special Report: On the Path to an Open Economy, A

Decrepit Steel Plant in the Urals,” *New York Times*, July 2, 1992, 1; Tarasenko interview.

113. The bankruptcy law was amended in 1998. However, the main framework of the law remains the same.

114. “Russia Regulation: No closer to a workable bankruptcy procedure,” *The Economist Intelligence Unit Ltd.* (August 13, 1998).

115. Gustafson, 228.

116. European Bank for Reconstruction and Development, *Transition Report 1999*, 259.

117. This is probably equivalent to the imposed “stay” on financial transaction in industrialized economies, which includes a prohibition on the issuance of new debt. See European Bank for Reconstruction and Development, *Transition Report 1999*, 161.

118. Craig A. Hart, “Undoing Privatization? Russian Bankruptcy Law and Privatization,” *Bankruptcy Developments Journal*, 14 Bank. Dev. J. 311 (1998), 315.

119. “Russia is Entering an Era of Civilized Bankruptcies: As of March 1, Not a Single Debtor Will be Able to Sleep Peacefully,” *Moscow Izvestiya*, February 27, 1998; European Bank for Reconstruction and Development, *Transition Report 1999*, 48.

120. Anatoliy Usoltsev, “Business Flourishes Where Law, Not Officials, Rule: At the Magnitogorsk Metallurgical Combine They Count Money In German And In Japanese,” *Moscow Rossiyskaya Gazeta*, FBIS.

121. Russia intended to “eliminate the bias in the law towards reorganization rather than liquidation of enterprise, eliminate court discretion in overruling the creditors’ decision to liquidate the debtor enterprise; and provide for the participation of the state in bankruptcy proceedings at all stages where relevant for the protection of the public interest.” Statement of the Government of the Russian Federation, and Central Bank of Russia on Economic Policies, July 13, 1999, 12. This statement described the policies that Russia intended to implement in the context of its requirements for financial support from the International Monetary Fund.

122. “Russia Regulations: No closer to a workable bankruptcy procedure,” *The Economist Intelligence Unit Ltd.* (August 13, 1998), 1.

123. “Alfa Bank To Pay Zapsib Taxes,” *Russkiy Telegraf*, March 24, 1998; Gleb Kolesnikov, “How the Wealth of Alfa Is Accruing in Siberia,” *Krasnoyarskiy Rabochiy*, August 29, 1998; Gleb Pyanykh, “Aman on the Campaign Trail,” *Moscow Kommersant-Vlast*, June 8, 1999; “Siberian mills resume bankruptcy battles,” *Metals Bulletin*, January 14, 2000; Igor Lavrenkov, “Nationalization Kuzbass Style. Aman Tuleyev Wants to Become Metallurgy’s King,” *Moscow Segodnya*, November 13, 1999.

124. Financial information accessed from Rating Agency “Ekspert PA”, Russian Metallurgy, Part 1–Ferrous Metallurgy, Moscow, 1999.

125. Id.

126. Unless otherwise noted, this section is based on Metals Bulletin Research Ltd. and InfoMine-CIS, 71–73, and interviews by Department of Commerce officials with Magnitogorsk Iron and Steel Works, Beddows and Company, Bali Trading, Cargill, Mannesmann, MetalsRussia, Ronly Holdings, Safin, Steel Coils, Thyssen and TradeArbed (January – March 2000).

127. Celestine Bohlen, “Facing Oblivion, Rust-Belt Giants Top Russian List of Vexing Crises,” *The New York Times Online*, November 8, 1998.

128. Organization for Economic Cooperation and Development Emerging Market Forum, Statement by Nicholas C. Tolerico (Paris, May 15, 1998), CCNM/EMEF/SC(98)5 and Organization for Economic Cooperation and Development News Release, “Co-operation between OECD and Russia and Ukraine in the Steel Sector” (Paris, December 21, 1998), 1.

129. Smirnova, 46.

130. *Ibid.*, 48.

131. The first unilateral EU-wide quota went into effect on January 1, 1993.

132. Commission of the European Communities, *Official Journal*, No L 005 (August 1, 1996), 25–46.

133. The EU and Russia had already signed an Agreement on Partnership and Cooperation in June 1994 which normalized trade relations between the two trading partners in nearly every category other than steel.

Under separate agreements, Russia was also entitled to supply 430,000 MT of flat-rolled products and 20,000 MT of long products to the former German Democratic Republic in 1995 and 450,000 MT of flat and long products in 1996. *Official Journal of the European Communities* No L 85/44 (April 19, 1995); European Commission Bulletin of the European Union 7/8 1996, 104; Marcus and Kirsis, “*Russian Steel*,” 14.

134. See EU/Russian agreement on trade in certain steel products, Annex II. In November 1999, the EU further reduced Russia’s steel quota by 20 percent in response to Russian export tariffs on steel scrap.

135. To assist Russian steelmakers move toward European standards in these areas, the EU provides technical assistance through the Technical Assistance to the CIS (TACIS) program.

136. Global Trade Information Services, Inc., *World Trade Atlas* (China Edition, December 1999). One caveat with this import data, or any Chinese data, is that apparently a lot of Russian steel is smuggled into China. (See e.g., “Steel Industry ‘Hit Hard’ by Steel Smuggling from Russia,” *Beijing Zhongguo Xinwen She*, June 13, 1997, FBIS. It is not certain whether or not Chinese import statistics would include any or all of this smuggled steel. Thus, figures for Russian steel imports into China may be under reported.

137. Metal Bulletin Research/Battelle, *A Profile of the Steel Industry in China* (London and Ohio, February 2000), 162.

138. InfoMine-Russia, 21.

139. Yevgeny Spiridonov, “Russian Metallurgists Accused of Dumping,” *Moscow Segodnya*, December 26, 1996.

140. World Trade Organization, *Semi-Annual Reports Under Article 16.4 of the Agreement* (Committee on Anti-Dumping Practices); InfoMine-Russia, 18. Countries that have initiated antidumping investigations or introduced antidumping duties against Russian steel include: Argentina, Brazil, Canada, Chile, China, Colombia, European Union, India, Indonesia, Malaysia, Mexico, Peru, Philippines, South Africa, South Korea, Taiwan, Thailand, Turkey, United States, Venezuela, and Vietnam. InfoMine-Russia, 18, 42–43; OECD Document CCNM/NIS/DSTI(99)60, “Specific Problems Hampering Steel Industry Development in the NIS,” October 29, 1999, 4.

141. The chart reflects imports of all cut-to-length plate. Virtually all the imports were of carbon cut-to-length plate. The scope of the antidumping proceedings included most types of carbon cut-to-length plate.

142. InfoMine-Russia, 47.

143. Marcus and Kirsis, *Core Report NNN*, 3–156.

144. InfoMine-Russia, 47.

145. Marcus and Kirsis, “*Russian Steel*,” 7; ITC, *Certain Hot-Rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), II–8.

146. ITC, *Certain Hot-Rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), II–8.

147. *Ibid.*, I–10, II–12.

148. Memorandum to Assistant Secretary Robert LaRussa from Deputy Assistant Secretary Joseph Spetrini, “The Prevention of Price Suppression or Undercutting of Price Levels in the Suspension Agreement on Certain Hot-Rolled Flat-Rolled Carbon-Quality Steel Products from the Russian Federation,” (“Price Suppression Memorandum”) in Investigation A–821–809.

149. *Id.*

150. *Id.*

151. U.S. Census Data for Imports from Russia of hot-rolled steel cited in Price Suppression Memorandum, 6.

152. ITC, *Certain Hot-Rolled Steel Products from Japan*, Publication no. 3202 (Washington D.C., June 1999), IV–5.

153. U.S. Bureau of the Census data accessed from the ITC Dataweb available from <http://dataweb.usitc.gov/>; Internet.

154. Based on interviews with steel traders by Department of Commerce officials at the American Institute for International Steel, Inc. (AIIS) National Convention, March 26–28, 2000, in Boca Raton, Florida.

155. Difference between average import value of hot-rolled products between 1997 and 1998. See U.S. ITC dataweb at <http://dataweb.usitc.gov/>; Internet.

156. InfoMine-Russia, 13.

157. Raymond Hutchins, *Soviet Economic Development* (New York: New York University Press, 1971), 57.

158. Louis Uchitelle, “Russia’s Rust Belt,” *New York Times*, July 2, 1992.

159. Celestine Bohlne, “Facing Oblivion, Rust-Belt Giants Top Russian List of Vexing Crises,” *New York Times*, November 8, 1998.

160. Uchitelle.

161. Magnitogorsk Iron and Steel Works interview.

162. InfoMine-Russia, 65, 68.

163. *Ibid.*, 72, 73.

164. In this reference and in Chart 3–17, “Asia” includes China, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam.

### 3.2 Japan

1. Japan Fair Trade Commission, *JFTC Fact Finding Survey on the Steel Market*, JFTC Secretariat (Tokyo, April 14, 1994), 104.

2. WTO. At the time of this report, at least four of the investigations had resulted in the imposition of duties.
3. As discussed in more detail later in this report, this decision was referenced by interview sources in Japan and in the United States and was also the subject of Japanese and U.S. press accounts.
4. See Chart 3-25, *infra*.
5. Hot-rolled and structural shapes import increases are discussed in depth, *infra*. Hot-rolled sheet imports increased tenfold from 1996 to 1998. U.S. Census import data, available from <http://dataweb.usitc.gov>; Internet.
6. The “ultra-low” prices offered by Japanese firms during this time were widely noted in industry reports, as was the destabilizing effect of Japanese exports on the U.S. market. See Peter F. Marcus and Joseph J. Innace, *World Steel Dynamics, Price Track 59* (September 1998), 53. Noting that the Japanese strategy of sustaining exports to offset low domestic demand “has worked for much of 1998 because of their willingness to sell at an ultra-low price and sharply boost deliveries to the United States. ... In the case of hot-rolled sheet destined for the United States, the 1998 rate of delivery has been extraordinary.”
7. Import prices normally do not decline by as much as the depreciation in exchange rates with the key determining factors being price sensitivities of demand and supply. Econometric studies have typically found pass-throughs of exchange rate changes to foreign denominated prices of less than 60 or 70 percent. In the case of U.S. imports of Japanese steel, especially hot-rolled sheet, import prices in the U.S. declined by at least as much as the decline in the yen-dollar exchange rate and typically more in 1997–1998 period. By September 1998, the U.S. import price of hot-rolled sheet from Japan had declined substantially more than the decline the dollar-yen exchange rate. See Chart 3-29, which depicts the derived (from the U.S. dollar UVI) per-unit revenue in Yen. This chart would show the per unit-revenue in yen to be flat if the decline in the dollar UVI was exactly equivalent to the decline in the yen.
8. Merrill Lynch, *Japanese Steel Industry Report* (December 9, 1998), 7 (quoted verbatim *infra*).
9. “Japan Firms Must Do Their Part to End Steel Row,” *Nihon Keizai Shimbun*, August 7, 1999.
10. McKinsey Global Institute, *Unlocking Economic Growth in Russia* (Moscow, October 1999), Exhibits 12, 13.
11. Due to confidentiality concerns, not all of the information collected is presented in this public report. This includes both information gathered through direct interviews and in published materials such as industry reports. However, the information that is presented is consistent with these sources.
12. *Supra* note 1.
13. Mark Tilton, Japan Information Access Project, *Japan’s Steel Cartel and the 1998 Export Surge* (Washington D.C., October 23, 1998), 3.

Both the import protection and the cartel, furthermore, do not appear to be simply private customs. These practices are actively supported by government authorities. ... The above cited retired steel executive told me in 1997 that the Ministry of Trade and Industry (MITI) helps coordinate the production cartel. ... The same retired steel executive argued that the steel industry gets MITI involved, not because it needs to help organize the cartel, but to protect itself from the Japan Fair Trade Commission (JFTC). (7)

See also Richard Katz, *Japan: The System That Soured* (Armonk NY: East Gate 1998), 183: “Protected by MITI and dominated by five big firms who produce 70 percent of Japan’s steel, the industry has long been able to collude and insist upon industry-wide oligopolistic prices.” But note that Tilton and others also say the government is less directly involved in steel than in other industries. See Mark Tilton, *Restrained Trade* (Ithaca, NY: Cornell University Press, 1996), 169: “Because of the strength of price leadership in the steel industry, its market-governing mechanisms are simpler than cement or petrochemicals’; and in recent years MITI’s hand on it has been lighter.”

14. See Tilton (1998), 5–6, wherein he states that the big buyer price governs approximately 60 percent of integrated producers’ sales, and contrasts it with the U.S. list price, which is generally discounted in setting actual prices. See also Katz, 183, where he states that 80 percent of all steel sold to Japanese manufacturers is sold at the big buyer price. In a June 7, 2000, meeting with Commerce Department officials, representatives of Japanese integrated producers confirmed that “big buyer” sales represent a majority of total integrated producer sales.

World Steel Dynamics observations on big buyer prices come from telephone conversations with Department of Commerce staff and WSD officials.

According to the *Kensetsu Bukka*, the relationship between big buyer prices and actual (non-list) prices is as follows. The *Kensetsu Bukka* price survey provides company-specific (i.e., Nippon Steel, NKK, Kawasaki Steel, Sumitomo Steel, Kobe Steel, Nisshin Steel, Nakayama Steel Works, and Chubu Steel Plate) monthly list prices for “tie-in-sales.” “Tie-in-sales,” as defined by the survey, are sales mainly by blast furnace manufacturers, in which the manufacturer contracts with the customer through a trading company. The survey also provides “actual sales prices” for “tie-in-sales.” These “actual sales prices” are determined by taking into account the specific transaction terms

between the manufacturer and the customer. The “actual sales price” reflects the price of all manufacturers as opposed to a manufacturer-specific price. These “actual sales prices” are virtually identical to the “big buyer” prices listed in World Steel Dynamics *Price Track* for comparable periods. As noted in *Price Track*, to obtain the FOB mill price, a three percent dealer commission and freight expense would be subtracted from the reported big buyer price. The big buyer prices as listed in World Steel Dynamics also appear to correspond to those reported in a second Japanese price series, the *Sekisan Shiryo* (“*Price Data for Construction Cost Estimating*”), which is produced by another research organization, *Keizai Chosa Kai* (“*Economic Research Association*”). This organization performs research in association with both the Ministry of Construction and the Economic Planning Agency.

The *Kensetsu Bukka* includes prices for flat products with designations SPHC and SPCC. According to an NKK Corp. product brochure, SPHC corresponds to ASTM A569, which is a commercial quality carbon hot-rolled sheet specification. See “Hot-Rolled Coils & Cut Lengths,” NKK Corp., September 1998, 11. According to a Kawasaki Steel product brochure, SPCC corresponds to ASTM A366, which is a commercial quality carbon cold-rolled sheet specification. See “Cold-Rolled Sheet and Coils,” Kawasaki Steel, October 1996, 9.

15. Peter F. Marcus and Sheryl Iwanski, World Steel Dynamics, *Price Track* 63, (October, 1999), 40.

16. Merrill Lynch, *Japanese Steel Industry Report* (September 1998), 2.

17. Merrill Lynch, *Steel Industry, Moving Toward Realignment of Production Facilities, Steel Mills and Companies, Japan Steel In-depth Report*, (June 3, 1998), 4. The reference to ‘six’ companies includes Nisshin Steel, an affiliate of Nippon Steel. This statement was made as part of an analysis of whether, in the event that production remained below 95 million tons, such firms “would be forced to concentrate on securing sales volume even at the expense of prices.” It noted that “the current premium” on domestic prices would diminish in such an event.

18. Hiroyuki Itami, *The Japanese Steel Industry: Why it is Still Number One* (1997), 66–67, 166–167. See also Katz (1998), 183. Katz relates the high domestic prices charged by “the steel cartel” to the profitability of Japanese producers, stating that this is the primary reason why profits in the early 90s averaged four times the 1970 level, despite the fact that Japanese producers had lost their cost advantage by this time.

19. Seiichiro Yonekura, *The Japanese Iron and Steel Industry, 1850–1990* (New York: St. Martin’s Press, 1994), 134 et seq.

20. Regarding the capacity build-up period and the government’s role in fostering steelmaking capacity during this time, see Patricia O’Brien, Harvard Business School Case Study, *The Development of the Japanese Steel Industry* (Boston, 1987).

21. Tilton (1996), 42–49; Katz (1998), 185–186.

22. Yonekura, 134 et seq. Note also that the fact that industry collusion serves the same goal as direct government support has been discussed by Tilton, among others: “[B]ecause MITI policy toward large firms has been aimed at helping industry financially through cartel arrangements, few government expenditures are necessary and trade associations have not needed to lobby the Diet.” Tilton (1996), 26.

23. O’Brien, 9 et seq.; Yonekura, 212 et seq. Note however, that Yonekura, while acknowledging MITI’s coordinating role, views MITI’s involvement as less active than O’Brien.

24. Kozo Yamamura, *Policy and Trade Issues of the Japanese Economy, Success That Soured: Administrative Guidance and Cartels in Japan*, (Seattle: University of Washington Press, 1982), 80.

25. Yamamura, (1982), 99.

26. Katz (1998), 31, footnote 1.

27. The “horizontal lines” discussion was taken from Hiroyuki Itami, *The Japanese Steel Industry: Why it is Still Number One* (1997), 165. Itami further states:

When one takes into account the fact that there were large investments made after 1975, the situation becomes extremely unnatural. From 1975 to 1979 seven new blast furnaces were established. ...But after 1973 Japan’s steel production was no longer growing. It was just fluctuating above and below 100 million tons. With overall production not growing, it would be normal for shares to change even more if huge investments were being made. The usual logic is for the cost competitiveness of new facilities to be linked to larger market share. Overall production not growing, huge investments, but unchanging shares. And the birth of a giant leader whose share exceeds 40 percent. Under these circumstances, is it wrong to end up feeling that the compass had deviated toward cooperation? (165)

In addition to Professor Itami, interview sources who discussed the ongoing existence of the “cooperative system” include, *inter alia*, a Japanese steel industry investment analyst, a Japanese independent steel company official, and Professor Mark Tilton of Purdue University.

Among those who have written on this subject in the late 1990s are Naoki Tona, *The Japan Iron and Steel System* (1996), 6–7; Richard Katz, 183 *et seq.*; and Mark Tilton (1996), 169–189 and Tilton (1998), 1–1; see also “Survey of Business in Japan,” *The Economist*, November 27, 1999, 1.

For the comment on the narrow production gap between Kawasaki Steel and Sumitomo Metals, see “U.S. Final Decision in Dumping Suit Against Japan’s Hot-Rolled Steel Sheets Taken as Prelude to Age of Survival of the Fittest in Iron and Steel Industry: Way Now Opened to Full-Scale Competition, Bidding Farewell to “Activities Based on Conventional Wisdom.” *Nikkei Sangyo Shimbun*, June 13, 1999, listing traditional production shares as: Nippon: 41.3 percent; NKK: 17.6 percent; Kawasaki and Sumitomo, 15.9 percent; Kobe: 9.3 percent, and stating that Yoshihiro Inayama, former President of Nippon Steel, “kept watch over market shares down to the decimal point.”

For Professor Uriu’s views on cooperation among Japanese steel producers, see Robert Uriu, *Troubled Industries* (Ithaca: Cornell University Press, 1996), 228–230. The market study commissioned by the Commerce Department also indicated that “cartel activity is thought to be non-existent in the current era of deregulation.” *DOC Japan Market Study at 12*. According to the research firm commissioned by the Commerce Department, this statement was based mainly on information provided by Kobe Steel Research Institute, a research think-tank associated with Kobe Steel, one of the five major integrated producers in Japan.

For an example of commentary on slight changes in Japanese production share, see “Exports Change Crude Steel Output Share Among Major Makers,” *Nihon Keizai Shimbun*, October 26, 1999, describing late 1999 changes in production share ranging from 0.5 to 1.0 percent among the top five firms as “the largest-ever change in production share.”

28. Interview with Hiroyuki Itami, November 17, 1999.

29. Itami (1997), 274–285.

30. Edward Lincoln, *Troubled Times: U.S.–Japan Trade Relations in the 1990s* (1998), 209–211. In answering the question of whether “the Japanese government created advantage for particular domestic industries at the expense of foreign industries,” he replies, “The answer is a clear yes; in a variety of industries [naming steel among others] the government has clearly fostered domestic firms through all available policy tools.” Lincoln does not consign such behavior to the past, but contends that Japanese industrial policy has continued well past its developmentalist phase.

Both U.S. producers and Japanese producers have cited data on long-term profitability of the Japanese industry in their arguments regarding the benefits (or lack thereof) of alleged coordination among producers. U.S. producers have provided data showing that the operating profit and net income ratios of Japanese producers have exceeded U.S. producers from 1977–1995. They have also provided data indicating that profit levels for Japanese firms fluctuate far less than for U.S. firms in support of their argument that the Japanese industry is relatively insulated from market cycles. Japanese firms, on the other hand, claim that their profitability has been at a low 2 percent over the past decade, and that net profit has shrunk to 1 percent of revenue over the past 2 years.

Regardless of the data cited, there are limitations in using overall profitability to judge whether industry coordination on domestic market sales to major customers is occurring. Overall profitability is a measure of all factors related to a company’s performance, and is not sufficiently precise to indicate the degree to which producers are competing in their domestic market. In particular, total profitability may mask one of the primary distortions that results from a non-competitive domestic market: the marked differences in selling prices in the domestic and export markets.

31. Itami (1997), 167.

32. Christopher Hall, *Steel Phoenix*, (New York, St. Martin’s Press, 1997), 106.; Greg Mastel and Andrew Szamoszegi, Economic Strategy Institute, *Leveling the Playing Field: Antidumping and the U.S. Steel Industry*, (Washington, 1999), 15.

33. Katz (1998), 163.

34. Id. “The cartels, collusion, and *keiretsu* also created a phenomenon that, for a while, seemed to make Japanese exporters unbeatable in world competition: the *profit sanctuary*. By keeping the domestic market closed to imports, and therefore being able to charge high prices at home, companies earned high enough profits at home to be able to subsidize low prices on the export front, and thereby seize foreign market share.”

For a historical precedent of marginal cost pricing over an extended time by the steel industry, see Katz (1998), 185–86, regarding Japanese steel shipments at export prices nearly 30 percent below the domestic big buyer price during 1985–91. Katz comments, “As with cement, steelmakers facing huge fixed costs seemed satisfied if they could merely meet variable costs on the export front.” Katz relates the high domestic prices charged by “the steel cartel” to the profitability of Japanese producers, stating that this is the primary reason why profits in the early 90s averaged four times the 1970 level, despite the fact that Japanese producers had lost their cost advantage by this time. (183)

35. Lincoln (1998), 208–210.
36. Merrill Lynch, “Japanese Steel Industry, Consolidate Facilities or Risk Putting Crude Steel Share in Flux,” *Japan Steel In-depth Report* (December 1998), 7.
37. Morgan Stanley, *Japan Steel: January Supply-Demand and Price Trends* (February 3, 2000), Appendix 10.
38. See e.g., U.S. Department of Commerce, International Trade Administration, *Notice of Final Determination of Sales at Less Than Fair Value: Hot-Rolled Flat-Rolled Carbon-Quality Steel Products From Japan*, 64 Federal Register 24329 (May 6, 1999). Although the actual pricing and cost information submitted in those cases cannot be analyzed for purposes of this report because it is proprietary information within the meaning of Section 777 of the Tariff Act of 1930, as amended, the overall weighted-average dumping margins are provided in these public notices.
39. Tilton, (1998), 5–6. States that the big buyer price governs approximately 60 percent of integrated producers’ sales, and contrasting it with the U.S. list price, which is generally discounted in setting actual prices. See also Katz, 183. Stating that 80 percent of all steel sold to Japanese manufacturers is sold at the big buyer price.
40. Peter F. Marcus and Sheryl Iwanski, World Steel Dynamics, *Price Track 64* (February 2000), 45.
41. Tilton (1998), 5.
42. See Letter to Department of Commerce from William Barringer, Willkie Farr & Gallagher, representing the Japanese integrated producers, April 11, 2000 (“Debunking the Myth of Japanese Steel Cartels”), 1–2.
43. Meeting with representatives of Japanese integrated producers, June 7, 2000.
44. Id.
45. Tilton (1998), 6.
46. Tilton, 6, for import penetration levels in various countries as of 1996, listing U.S. import penetration at 25 percent, Korea at 30 percent, and various EU countries at over 40 percent. Tilton states that the high EU import penetration rates reflect “their geographical proximity to one another and high levels of trade openness.”
47. JISF, *Monthly Report on the Iron & Steel Statistics*, March 1998. Both imports and apparent consumption calculated on a crude steel equivalency basis, for consistent comparison. See also Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Core Report NNN* (January 2000), 3–24, 3–25.
48. Id.
49. Id.
50. See *Metal Bulletin Monthly*, September 1986. See also *Japan Economic Journal*, March 16, 1991.
51. Letter to Department of Commerce from William Barringer, Willkie Farr & Gallagher, representing the Japanese integrated producers, April 11, 2000 (“Debunking the Myth of Japanese Steel Cartels”), 3. “the absurdity” of the “contention that Japanese steel companies could coerce customers many times their size into paying extortionate sums for steel by threatening to withhold business.”
52. Tilton (1998), 6.
53. *Ibid.*, 6, 9.
54. *Ibid.*, 10.
55. *Ibid.*, 10–11.
56. Id.
57. *Ibid.*, 10–12.
58. *Ibid.*, 10.
59. *Ibid.*, 11.
60. Standards and certification systems often have significant adverse effects on international trade and can amount to an effective trade barrier, particularly when these standards differ between trading countries. For this reason, the General Agreement on Tariffs and Trade has, since the 1979 Tokyo Round, included an Agreement on Technical Barriers to Trade. This agreement requires harmonization of technical regulations and standards, and non-discrimination against foreign parties. Today, the JIS standards for steel are generally considered to be harmonized with American Society for Testing and Materials (ASTM) standards.
61. Summary of telephone conversations with Steel Team Analyst and a U.S. company official that had sought JIS certification.
62. Letter to Department of Commerce from William Barringer, Willkie Farr & Gallagher, representing the Japanese integrated producers, April 11, 2000 (“Debunking the Myth of Japanese Steel Cartels”); Statement made by representative of the Government of Japan at the director level session of the U.S.–Japan Steel Dialogue, March 16 and 17, 2000, Tokyo, Japan.
63. “Major Japanese Companies Seek New Competition Rules,” *Nihon Keizai Shimbun*, December 10, 1999. See press release, “Commission fines cartel of seamless steel tube producers for market sharing,” Brussels, December 8, 1999, available from <http://europa.eu.int>; Internet: “To coordinate their behaviour on the standard OCTG and project

line pipe markets, the European and Japanese producers set up a cartel, which they called the 'Europe Japan club.' The cartel restricted competition in the common market by requiring that the domestic markets of the different producers (i.e., the German, French, Italian, UK, and Japanese markets) should be respected."

64. Source: Information provided to Commerce Department by U.S. steel producers.

65. Id.

66. Id.

67. Id.

68. Korea's exports of finished steel to the EU increased by 2187 percent from 1997 to 1998. This was an increase of 1,549,045 tons. World Trade Atlas: Korea CD-ROM (June 1999).

69. Interview with Masanari Iketani, November 1999.

70. Merrill Lynch, "Steel Industry, Moving Toward Realignment of Production Facilities, Steel Mills and Companies," *Japan Steel In-depth Report*, (June 3, 1998), 4.

71. Korea-Japan import levels, and the alleged market arrangement, were referenced by industry officials and academics in interviews both in the U.S. and Japan.

72. All data on Gross Domestic Product, including components, calculated from statistics compiled by Japan's Economic Planning Agency available from <http://www.epa.go.jp/e-e/menu.html>; Internet (Note all figures are for the calendar year and are rounded.) Japanese real GDP in 1998 was ¥480.6 trillion, down 2.5 percent from ¥493.0 trillion in 1997. Real GDP (annualized rate) in 1Q97 was ¥499.2 trillion versus ¥475.6 trillion in 4Q98, a difference of 4.7 percent.

73. Supporting endnotes for this text box:

See MITI, *Interim Report of the Forum on Structural Problems Related to the Basic Materials Industries* (June 1999), Introduction, Section 2.3. See also Peter F. Marcus and Karlis M. Kirsis, *World Steel Dynamics, Core Report NNN* (January 2000), 3–25. Based on apparent consumption. See also Japan Iron and Steel Federation (JISF), *Monthly Report of the Iron and Steel Statistics*, (Tokyo, December 1999), Vol.42. No.12. (Ordinary steel sales to the construction sector fell from 18.5 million tons in 1990 to 12.9 million tons in 1998. Ordinary steel sales to the automobile sector fell from 12.2 million tons in 1990 to 8.3 million tons in 1998.)

See also Katz, 197–198. "Japan's cartelized economy is so distorted that it suffers from a kind of 'economic anorexia.' In other words, private domestic demand is chronically too deficient to consume all that Japan produces.;" "Protection of steel required protection of autos and machinery. Protection of cement required protection of construction. All these layers of protection padded profits up and down the line. They also made consumer prices so high that consumers simply could not afford to pay them all; they consumed less.." Ibid., 210.

See also MITI *Interim Report*, Chapter 1, Section 1.1

See also MITI *Interim Report*, Chapter 1, Section 1.3. See also, "Nippon Steel's Blast Furnace Capability Will Increase by 10 Percent," *Nihon Keizai Shimbun*, April 16, 1999, "Currently, demand for crude steel is as low as the level 30 years ago and it is considered that 20 million tons of production capacity is excess against Japanese domestic crude steel production capacity (assumed as slightly less than 120 million tons)." See Iso, Greg Mastel and Andrew Szamoszegi, Economic Strategy Institute, *Leveling the playing Field: Antidumping and the U.S. Steel Industry* (Washington D.C., February 1999) Lists Japanese 'excess steel production' in the 20–25 million ton range for 1996–99 (citing OECD Steel Committee, 1998). See also, Peter F. Marcus and Michael A. Organek, *World Steel Dynamics, Price Track 62*, (June 28, 1999), 8.

Regarding historic industry-wide capacity figures including the 140 million ton capacity figures for the early 1980s, see the following World Steel Dynamics Core Reports. All figures effective capacity. 1960-1996: Peter F. Marcus and Karlis M. Kirsis, *World Steel Dynamics, Core Report III*, (October, 1998), 2-34; 1997-1999: Peter F. Marcus and Karlis M. Kirsis, *World Steel Dynamics, Core Report MMM*, (September, 1999), 1-6, 2-2. Regarding the capacity build-up period and the government's role in fostering steelmaking capacity during this time, see Patricia O'Brien, Harvard Business School Case Study, *The Development of the Japanese Steel Industry*, (Boston, 1987). Regarding the overcapacity that has characterized steel and other basic materials industries since the early 1970s, see Katz, 168. Long-term overcapacity in the Japanese steel industry through the late 1990s was also routinely acknowledged by steel experts in interviews for this report.

74. In 1996, Japan's real GDP was ¥485.2 trillion, an increase of nearly 5.1 percent from ¥461.9 trillion in 1995. Public demand dropped nearly ¥4 trillion between 1996 and 1997, or more than 0.8 percent of real GDP in 1997. Between the 2Q97 and 4Q98, Japanese exports fell from almost ¥68.1 trillion to ¥64.3 trillion, a difference of 5.6 percent. Data calculated from statistics compiled by Japan's Economic Planning Agency available from <http://www.epa.go.jp/e-e/menu.html>; Internet.

75. The collapse of Hokkaido-Takushoku Bank (Takugin) in November 1997 marked the first time any major city bank had failed in the past 50 years. Within the same month, Yamaichi Securities, one of Japan's Big Four brokerages,

also collapsed. “Survey of Business in Japan,” *The Economist*, November 27, 1999, 1,6.

76. The Bank of Japan’s *Tankan* survey of business conditions reports a Diffusion Index on the lending stance of Japanese banks. The index swung from +14 in the September 1997 survey to -19 in March 1998. A larger “+” figure means more surveyed firms believe ample credit is available; a larger “-” figure means firms believe credit is tight.

77. See data series, Bank of Japan, “Principal Figures of Financial Institutions,” available from [http://www.boj.or.jp/en/siryo/siryo\\_f.htm](http://www.boj.or.jp/en/siryo/siryo_f.htm); Internet.

78. For a brief description of Japanese government macroeconomic policy measures, see OECD, *Economic Survey of Japan for 1999*, 42–43.

79. For an overview of Japanese government measures and impact on the banking sector, see IMF, *International Capital Markets*, (September 1999), 136–154.

80. Katz, 219–21. “Protected by regulations and a lenient Finance Ministry Banking Bureau, the banks had no system for screening customer creditworthiness resembling anything like the screening departments of American banks. Bank loans were not based on projections of future company cash flow. Nor did banks charge different rates according to the riskiness of the loan.”

81. *Economic Report of the President*, February 1999, 230.

82. See MITI, *Interim Report* (June 1999), Introduction, Section 2.3; Chapter 1, Section 1.3.

83. In June, 1997, on the eve of the market collapses that would trigger the steel crisis, World Steel Dynamics, in a generally positive analysis of the competitive position of the Japanese steel industry, listed “extraordinarily high debt” as one its major negative characteristics. At that time, the five major integrated firms were carrying nearly \$30 billion in debt. See Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Monitor Report, Japan Steel: A Return to Global Prominence?* (June 1997), 2.

84. See DOC Market Research Report, 33. Based on parent company financial statements; See also *MITI Interim Report*, Chapter 1, Section 1.4.

85. See “Japan Firms Must Do Their Part to End Steel Row,” *Nihon Kezai Shimbun*, August 7, 1999. “[L]ast year’s surge in Japanese steel exports to the U.S. stemmed in part from Japanese steelmaker’s slowness in resolving the problem of chronic oversupply.” See also Mark Tilton, Japan Information Access Project, *Japan’s Steel Cartel and the 1998 Export Surge* (Washington DC, October 23, 1998), 1 “Japan artificially maintained uncompetitive steel capacity that has been the basis for this year’s large exports to the U.S. and other countries.” Emphasis added.

86. Id.

87. Merrill Lynch, “Steel Industry, From Inventory Adjustment in 1H to Domestic Price Adjustment in 2H,” *Japan In-depth Report* (September 17, 1998), 2.

88. As noted earlier, this decision was discussed by interview sources in Japan and in the United States and was also the subject of Japanese press accounts. Regarding the wave of exports to the U.S. in 1998, the *Nihon Keizai Shimbun* stated, “Blast furnace steelmakers used to curb production in spite of excess capacity to avoid competing in terms of output volume. Faced with competition from South Korean and Taiwanese rivals, however, they lifted curbs on hot-rolled steel for export in spring 1997.” “Japan Firms Must Do Their Part to End Steel Row,” *Nihon Kezai Shimbun*, August 7, 1999

89. Peter F. Marcus and Karlis M. Kirsis, See World Steel Dynamics, *Core Report NNN* (January, 2000).

90. Merrill Lynch, “Steel Industry, From Inventory Adjustment in 1H to Domestic Price Adjustment in 2H,” *Japan In-depth Report* (September 17, 1998), 2.

91. Southeast Asia and Korea comprises the largest export market for Japanese producers, at over 15 million tons for each year since 1993. See JISF statistics. “Southeast Asia and Korea” includes: Korea, China, Taiwan, Hong Kong, Thailand, Singapore, Malaysia, Philippines, Indonesia, and India.

92. “Final U.S. Antidumping Determination on Hot-Rolled Plate: Prelude to Weeding out in Steel Industry,” *Nikkei Sangyo Shimbun*, June 13, 1999.

93. Id.

94. JISF, *The Monthly Report on the Iron & Steel Statistics*; Organization for Economic Cooperation and Development, *OECD Steel Outlook 1999/2000* (Paris, 1999), 31.

95. As discussed above, the big buyer price, the high domestic prices charged by integrated firms to major customers, did not budge at any time in 1998; in fact it was unchanged throughout the 1996–1998 period for major products. See Peter F. Marcus and Michael A. Organek, World Steel Dynamics, *Price Track 62* (June 1999).

96. See JISF *The Monthly Report on the Iron and Steel Statistics*, and MITI *Interim Report*. See also OECD, 31. (Notes that while apparent consumption fell over 17 percent, real steel consumption fell by just over 15 percent because of a slight reduction in stocks.)

97. Merrill Lynch, “Steel Industry, From Inventory Adjustment in 1H to Domestic Price Adjustment in 2H,” *Japan In-depth Report* (September 17, 1998), 2.

98. See Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *Core Report NNN* (January 2000), 3–25.

99. See Peter F. Marcus and Karlis M. Kirsis World Steel Dynamics, *Core Report NNN* (January 2000), 3–24, 3–25.

100. The especially fierce competition between Japanese producers themselves on the export front, and the effect this had on driving down prices, was mentioned by U.S. importers and other interview sources.

101. U.S. ITC trade dataweb available at <http://dataweb.usitc.gov>; Internet.

102. Peter F. Marcus and Joseph J. Innace, World Steel Dynamics, *Price Track #59* (September, 1998), 53.

103. See analysis of Japanese unit import values, *infra*. The continued fall of Japanese export pricing is also shown in data provided to the Commerce Department by an investment firm in Japan.

104. Representatives of Japanese steel producers have proffered alternative explanations for the import surges and price declines that occurred in 1998. They note that a simple examination of the trade data without taking into account the normal three to five month lag between the time the steel is ordered and when it is imported into the United States presents a distorted picture of the events of 1998. Factoring in this lag time demonstrates that a considerable amount of the large volumes of Japanese steel that entered a weakened U.S. market in late 1998 was ordered during the first half of the year when market signals were still strong. However, on the price side, factoring in lag time indicates that the reductions in Japanese export prices—of carbon hot-rolled steel in particular—began much earlier, in some cases as early as 1997, well before the weakening of the U.S. market.

Representatives of Japanese steel producers have also argued that the price declines seen in 1998 were merely the result of shifts in product mix. For example, they claim that between 1997 and 1998, Japanese steel exporters moved away from high quality carbon hot-rolled steel and began to focus their sales efforts on commodity grades of carbon hot-rolled steel. An examination of the major HTS categories for carbon hot-rolled steel (accounting for over 95 percent of 1997 U.S. imports from Japan) shows that between 1997 and 1998, there was some shifting from higher valued products to products with relatively lower unit values. However, this shift alone is insufficient to explain the overall downward trend in prices across the board for all HTS categories of hot-rolled steel.

Holding prices constant while adjusting for changes in product mix results in a four percent drop in average carbon hot-rolled steel prices between 1997 and 1998. In comparison, average unit values for carbon hot-rolled steel fell nearly 20 percent between 1997 and 1998, significantly more than the price decline indicated by the shift in product mix. While it is possible that some product shifting may have occurred within a given ten digit HTS category, any such shifting cannot be captured by the data issued by U.S. Bureau of Census since the data within ten digit category cannot be further broken down.

105. Peter F. Marcus and Joseph J. Innace, World Steel Dynamics, *Price Track #59* (September 1998), 3. Such reports also speculated at the time of the export surge on the impact on Japanese domestic supply and price of the reverse situation—declining exports in the wake of U.S. trade actions. In discussing the likelihood of an increase in production for the domestic market in order to maintain utilization rates and the resulting decline in domestic prices in December 1998, Merrill Lynch stated: “Meanwhile, supply pressure is likely to build: prolonged production cuts and the narrowing of the US market forces Japanese makers to settle for adequate utilization rates at the expense of easing domestic prices.” As predicted, when exports to the U.S. were curtailed in 1999, Japanese domestic price levels to major customers finally dropped for each of these products. See Peter F. Marcus and Sherly Iwanski, World Steel Dynamics, *Price Track #64* (February 2000), 45.

Along the same lines, World Steel Dynamics described the implications for Japanese steelmaking capacity of a prospective decline in exports to the U.S. due to the trade actions anticipated at that time: “If [the yen rises from the 134/dollar rate of September 1998], Japanese steelmaking costs will rise dramatically. At the same time, steel production in Japan is down about 11% year-to-year through August, but fixed costs remain high, and steel demand at home is down. *If the Japanese cut back sharply their export shipments, they will also be forced to further downsize their steelmaking capacity.*” See Peter F. Marcus and Sherly Iwanski World Steel Dynamics, *Price Track #64* (February 2000), 5.

106. Based on dollar import values converted to yen at average monthly exchange rates.

107. “Final U.S. Antidumping Determination on Hot-Rolled Plate: Prelude to Weeding out in Steel Industry,” *Nikkei Sangyo Shimbun*, June 13, 1999.

108. See Katz for a thorough discussion of cartels as a primary *cause* of weak domestic demand.

### 3.3 Korea

1. Organization for Economic Cooperation and Development, *Economic Survey of Korea, 1999* (Paris, July 1999), 10. [Hereinafter OECD-Korea] “Prior to the crisis, the financial system was characterized by pervasive government intervention and discretionary enforcement of prudential rules.” A report from the International Monetary Fund echoes this sentiment: “The government’s history of intervening in the market, bailing out corporations, directing lending and appointing bank managers had undermined banks’ ability to appraise credit and market risk ... and led to excessive corporate risk-taking.” International Monetary Fund, *IMF Staff Country Report No. 00/11: Republic of Korea: Economic and Policy Developments* (Washington, D.C., February 2000), 94 [Hereinafter IMF-Korea]. See also Organization for Economic Cooperation and Development, *Conference on Corporate Governance in Asia: A Comparative Perspective, Corporate Governance in Korea* (Seoul, March 3–5, 1999), 38–44. “The distorted incentive structure... was largely affected by the policy environment, characterized by undue state influence in credit allocations as well as lax financial supervision and regulatory framework.” (38). “In Korea, unhealthy links between government and banks were a legacy of government-led economic development. The state influence over the banking sector has waned along with the progress in financial liberalization... [but] it has remained substantial until recently.” (38). “The Korean government had to provide an implicit guarantee on bank lending as it played a major role in credit allocation. Also, given the tight linkage between the banking and corporate sectors, corporate failures had an immediate impact on the soundness and viability of banks. For these reasons, the government undertook major corporate bailout exercises on numerous occasions.” (44).
  2. Economic Report of the President, February 1999, 230. Available from <http://ww3.access.gpo.gov/>; Internet.
  3. See discussion on Korean financial sector restructuring in Chapter 5.
  4. These were Hanbo Iron & Steel Co. Ltd., Sammi Steel Co. Ltd., Kia Steel Co. Ltd, Hwanyung Steel, and Shinho Steel.
  5. See supra, note 1.
  6. “Hanbo Steel to Sell Its Assets for \$480 Million,” *Wall Street Journal*, March 8, 2000. Hanbo’s debts were over 8,000 billion won at the end of 1998. “Nabors wins Hanbo Steel,” *Metal Bulletin*, March 8, 2000. Please note that dates of *Metal Bulletin* articles cited may not correspond to dates of publication in printed versions of *Metal Bulletin*.
  7. *A Profile of the Steel Industry in East Asia* (London: Metal Bulletin plc, 1999) 81. [Hereinafter MBR, *Profile*].
  8. Barry D. Solarz, American Iron and Steel Institute, *Perspectives on Steel Markets and Trade: Report on the NAFTA Region*, (Washington D.C.) Testimony before the Organization for Economic Cooperation and Development (OECD) Steel Committee Workshop on Steel Trade Issues (Paris, May 27, 1998). Testimony available from [http://www.steel.org/policy/trade/st\\_980527.htm](http://www.steel.org/policy/trade/st_980527.htm); Internet.
  9. Bryan Berry, “The Nucors of Asia: Hanbo and Tokyo Steel,” *Iron Age New Steel*, Vol. 12, No. 1, January 1996, 60–69.
  10. Peter Underwood, Fry Consultants Incorporated, *Korea’s Current Economic Crisis*, Web site available from <http://www.fryconsultants.com>; Internet, accessed May 18, 2000.
  11. “Hanbo Steel Gets Bailout,” *American Metal Market*, January 30, 1997, available from <http://www.amm.com>; Internet.
  12. Ihlwan Moon, “Korea’s Kim: War on Two Fronts,” *Business Week*, March 2, 1998.  
While other companies are paying interest rates of some 30%, these failed companies [Hanbo, Sammi, and Kia] are paying half that rate or lower as interest, says Min Sang Kee, an economics professor at Seoul National University.
- Despite a string of widely publicized failures, no big company has shut down any major factory. Giant Hanbo Iron & Steel Co. entered court receivership a year ago, but it is still churning out steel. So is Sammi Steel Co., which failed in March, 1997... Kim wants the banks to stop lending to big companies at preferential rates. But in just the past six weeks, banks have provided nearly \$1 billion in “emergency relief loans” to sickly *chaebol*. (54)
13. Organization for Economic Cooperation and Development, *Asia and the Global Crisis – The Industrial Dimension* (Paris, 1999).  
By frequently intervening to assist business groups on the verge of bankruptcy, the government stifled the operation of a well-functioning exit market. The too big-to-fail policy of the government had the effect of dramatically reducing the exposure of the

*chaebol* to downside risk. This created a serious moral hazard problem. Coupled with a tendency for *chaebol* owner to focus on growth at the expense of overall profitability, government intervention made it possible for the *chaebol* to diversify into areas where they had little experience, and without regard for adequate return. (74)

14. “Going for broke: Korea steels itself against failure,” *Far Eastern Economic Review*, Vol 161, June 11, 1998.

Hanbo Steel filed for bankruptcy in February 1997, but its continued production-and the lack of resolution about its fate-bespeaks a key structural flaw in many Asian economies: an unwillingness to let businesses fail. Hanbo, of course, is a particularly notorious monument to the colossal ambitions of Korea, Inc., having built up a debt amounting to more than 22 times its equity. But the ill effects of Hanbo’s managerial excesses have been exponentially compounded for all of Korean society by a structure that keeps bankrupt firms alive by exempting them from interest and principal repayments. The effect is to punish efficient companies by introducing unfair competition from the least efficient. (66)

15. Ihlwan Moon, “Korea’s Kim: War on Two Fronts,” *Business Week*, March 2, 1998, 54. See also Michael Schuman, “South Korea Risks Deepening Crisis As Ailing Firms Cling to Old Patterns,” *Wall Street Journal*, March 13, 1998, 1.

16. Government of Korea March 9, 1999, response to USTR questions.

17. The Nabors Consortium is led by Nabors Capital, a subsidiary of Nabors Industries, an oil and gas driller based in Houston, and Third Avenue Fund. The Consortium originally consisted of several investors including Hoogovens (Netherlands), and Jung Hoo Industry (Korea) and has also consisted of Hylsa (Mexico). However, membership in the group has been fluid, and most recently there has been talk of U.S. Steel joining the group to run the Korean mill. Samuel Len, “Hanbo Steel Concludes final pact on sale of assets,” *The Korea Herald*, March 9, 2000.

18. Ministry of Finance and Economy, Financial Supervisory Commission, and Financial Supervisory Service, *Korea Times*, March 25, 2000.

19. The principal exception in the steel sector was POSCO, which remained highly efficient and earned record profits even into the financial crisis in 1998. Christine Hill, “Competing with Korean Steel,” *Global Finance*, March, 1999.

20. Korea Iron & Steel Association, *Korea Iron & Steel Association Bulletin Monthly*, Vol. 26, No. 2 (February 2000), translated and excerpted for U.S. Department of Commerce, *Customized Market Analysis of the Korean Steel Industry* (authored by Korea Market Insight Ltd., Seoul, December 1999–May 2000), “Steel Facility Investment.” [Hereinafter CMA-Korea]

21. During this same time period (from 1993 to 1996) apparent consumption for the rest of the world increased, on average, 1 percent per year. (Data for 1994–1999) *Statistical Annex to the Draft Report on the OECD Steel Outlook for 2000 and 2001*, 4. (Data for 1993) July 6, 2000 E-mail from Franco Mannato Administrator of OECD Steel Unit to Department of Commerce Official.

22. Korea Iron & Steel Association, *Korea Iron & Steel Association Bulletin Monthly*, Vol. 26, No. 2 (February 2000), translated and excerpted for CMA-Korea, “Steel Facility Investment.”

23. Id. Steel facility investment was 79% in 1998 and 72% in 1999. However, even though these percentages were higher, absolute values declined from 1997 levels.

24. Korea Iron and Steel Association and POSCO Research Institute cited in CMA-Korea, “Follow-Up Questions Two: Capacity Utilization Rates.”

25. For each year between 1995 and 1998, about 14 percent of all KDB loans to the manufacturing sector went to the basic metals industry, including steel companies. Korea Development Bank and Korean National Statistics Office, information translated and excerpted for CMA-Korea, “Steel Financial Ratios.” In contrast, the basic metals industry accounted for about 2.3 percent of GDP during most of the 1990s.

26. The Korean Government’s direct and indirect intervention in the financial system has been well documented in the past. It is also well-known that during the 1970s and 1980s, the government directed financial institutions to provide low-cost financing to favored industries, including steel. POSCO was a direct beneficiary of these policies in the form of access to low-cost financing from domestic and foreign sources. During the 1990s, however, direct government intervention in the financial system to target specific industries or firms was less prevalent. International Monetary Fund, *IMF Staff Country Report No. 00/11: Republic of Korea: Economic and Policy Developments* (Washington, D.C., February 2000), stated:

Financial institutions traditionally lacked independence and were encouraged by government {sic} to channel credit to preferred sectors. Consequently, credit analysis

and risk management techniques remained undeveloped. The misallocation of credit was facilitated by a weak system of prudential controls and forbearance by the supervisory authorities. The result was a banking system with little commercial orientation, limited ability to price risk, and excessive exposure to large corporations. (5)

The information in the text box is derived from the following sources: International Monetary Fund, *IMF Staff Country Report No. 00/11: Republic of Korea: Economic and Policy Developments* (Washington, D.C., February 2000), 5; OECD– Korea. “Prior to the crisis, the financial system was characterized by pervasive government intervention and discretionary enforcement of prudential rules.” ; A report from the International Monetary Fund echoes this sentiment: “The government’s history of intervening in the market, bailing out corporations, directing lending and appointing bank managers had undermined banks’ ability to appraise credit and market risk ... and led to excessive corporate risk-taking.” IMF– Korea, 94; Organization for Economic Cooperation and Development, *Asia and the Global Crisis – The Industrial Dimension* (Paris, 1999), 74; Organization for Economic Cooperation and Development, *Conference on Corporate Governance in Asia: A Comparative Perspective, Corporate Governance in Korea* (Seoul, March 3–5, 1999), 38–44; See also the Organization for Economic Cooperation and Development, *OECD Economic Surveys: Korea (1997–1998)* (Paris, 1998), stating:

Until 1997, the authorities had never allowed any financial institution to fail. Banks and industry operated under the implicit assumption that if they faced serious difficulties while pursuing government policy objectives, the government would provide assistance through bailouts, arranged mergers or regulatory forbearance. (58)

See also Seong Min Yoo, “Corporate Restructuring in Korea: Policy Issues Before and During the Crisis,” *Joint U.S. – Korea Academic Studies, Volume 9, 1999*, 131, 164. Korea’s insolvency laws consist of the Bankruptcy Act, Composition Act, and the Company Reorganization Act. Organization for Economic Cooperation and Development, *OECD Economic Surveys: Korea (1997–1998)* (Paris, 1998), 32.

27. There have been four countervailing duty cases against Korean steel products covering exports to the United States in 1997 and 1998. The steel products covered by these investigations are stainless plate in coils, stainless sheet and strip, cut-to-length plate and structural steel. The following are the Commerce Department’s findings: *Final Negative Countervailing Duty Determination: Stainless Steel Plate in Coils from the Republic of Korea*, 64 FR 15530 (March 31, 1999) (*Plate in Coils*); *Final Affirmative Countervailing Duty Determination: Stainless Steel Sheet and Strip in Coils from the Republic of Korea*, 64 FR 30636 (June 8, 1999) (*Sheet and Strip*); *Final Affirmative Countervailing Duty Determination: Certain Cut-to-Length Carbon-Quality Steel Plate From the Republic of Korea*, 64 FR 73176, 73178 (December 29, 1999) (*Cut-to-Length Plate*); *Final Affirmative Countervailing Duty Determination: Structural Steel Beams from the Republic of Korea*, (June 26, 2000).

The Department of Commerce first concluded that the Korean government directed financial institutions to provide preferential loans to the Korean steel industry in a 1992 investigation covering basic steel products. *Final Affirmative Countervailing Duty Determinations and Final Negative Critical Circumstances Determinations: Certain Steel Products from Korea*, 58 FR 37338, 37339 (July 9, 1993) (*Steel Products from Korea*).

That investigation examined bank lending practices through 1991. In several other countervailing duty investigations, the Commerce Department found that the government continued to direct certain types of credit to the Korean steel industry through 1997 and 1998. *Final Negative Countervailing Duty Determination: Stainless Steel Plate in Coils from the Republic of Korea*, 64 FR 15530 (March 31, 1999) (*Plate in Coils*); *Final Affirmative Countervailing Duty Determination: Stainless Steel Sheet and Strip in Coils from the Republic of Korea*, 64 FR 30636 (June 8, 1999) (*Sheet and Strip*); *Final Affirmative Countervailing Duty Determination: Certain Cut-to-Length Carbon-Quality Steel Plate From the Republic of Korea*, 64 FR 73176, 73178 (December 29, 1999) (*Cut-to-Length Plate*); *Final Affirmative Countervailing Duty Determination: Structural Steel Beams from the Republic of Korea*, (June 26, 2000).

In 1999, the Court of Appeals for the Federal Circuit ruled that the Department of Commerce’s 1992 investigation lacked sufficient evidence to show that the Korean government directed credit specifically to the Korean steel industry through private commercial banks. *AK Steel Corp v. United States*, 192 F.3d 1367. However, in subsequent investigations the Department of Commerce reexamined these practices in light of the Court’s decision, and concluded on the basis of additional information that the steel industry did in fact benefit from government involvement in the financial sector prior to 1992. See *Final Affirmative Countervailing Duty Determination: Certain Cut-to-Length Carbon-Quality Steel Plate From the Republic of Korea*, 64 FR 73176, 73178 (December 29, 1999) (*Cut-to-Length Plate*); *Final Affirmative Countervailing Duty Determination: Structural Steel Beams from the Republic of Korea*, (June 26, 2000). In the other investigations, the Commerce Department also determined that loans

provided after 1991 by domestic banks, both private and government owned, constituted countervailable subsidies to Korean steel companies.

28. KOSA, *1998 Yearbook*, 286–287; CMA-Korea, “Steel Financial Ratios.”

29. Debt-to-equity ratios for USX, Bethlehem Steel, National Steel, LTV, and Nucor (top 5 U.S. producers of raw steel in 1998) from public financial statements.

30. International Monetary Fund, *Allocation and Financial Crisis in Korea, IMF Working Paper 99/20* (Washington, D.C., February 1999), 9.

31. Organization for Economic Cooperation and Development, *Conference on Corporate Governance in Asia: A Comparative Perspective, Corporate Governance in Korea* (Seoul, March 3–5, 1999), Chart I–4.

32. Averages for electric arc furnace producers are from *Korea Iron & Steel Association Yearbook, 1998*, excerpted for CMA-Korea, “Steel Financial Ratios.”

33. *Korea Iron & Steel Association Yearbook, 1998*, excerpted for CMA-Korea, “Steel Financial Ratios.”

34. These are Sammi Steel, Kia Steel, Hwanyung Steel, and Shinho.

35. *Korea Iron & Steel Association and POSCO Research Institute*, information translated and excerpted for CMA-Korea, “Follow-up Questions Two.”

36. Organization for Economic Cooperation and Development, *Asia and the Global Crisis – The Industrial Dimension* (Paris, 1999), 74.

37. Organization for Economic Cooperation and Development, *OECD Economic Surveys: Korea (1997–1998)* (Paris, 1998), 83.

38. Organization for Economic Cooperation and Development, *Asia and the Global Crisis – The Industrial Dimension* (Paris, 1999), 69–74.

39. Russ McCulloch, “Korean Banks Step in to Help Sammi,” *Metal Bulletin*, July 2, 1992.

Nine Korean banks are this week due to begin disbursing some 132bn won (\$167m) in emergency loans to help the Sammi group of companies out of their financial trouble...

The Korea First Bank, Sammi Steel’s main creditor bank will extend the largest single portion of the new loans with 40bn won, followed by the Korea Development Bank with 30bn and the Commercial Bank of Korea with 20bn. (21)

40. John Burton, “POSCO Pins its Hopes on IMF: Steelmaker needs freer hand,” *The Financial Times*, Nov. 27, 1999.

The initial government response was to press state-run Pohang Iron & Steel (POSCO), Korea’s dominant steel company and the world’s largest in terms of production, to help rescue its bankrupt rivals... The forced intervention of POSCO worried investors, who feared that the spree of acquisitions would burden the steelmaker with unwanted facilities. Credit-rating agencies threatened to downgrade POSCO if the deals were concluded. (27)

41. Organization for Economic Cooperation and Development, *Conference on Corporate Governance in Asia: A Comparative Perspective, Corporate Governance in Korea* (Seoul, March 3–5, 1999), Table IV–1.

42. Michael Schuman, “South Korea Risks Deepening Crisis As Ailing Firms Cling to Old Patterns,” *The Wall Street Journal*, March 13, 1998, 1. “Like many other victims of the financial turmoil, Kia is benefitting from Korea’s lingering willingness to allow financially troubled major companies to carry on indefinitely.”

43. CMA-Korea, “Steel Questions Four.” Includes finished steel for companies that do not make crude steel.

44. Collier Bankruptcy Manual, 3rd ed., Vol. 1, section 364.01-364.07 (2000).

45. Hanbo’s hot-rolled mill did, however, shut-down in July, 1998.

46. Michael Schuman, “South Korea Risks Deepening Crisis As Ailing Firms Cling to Old Patterns,” *The Wall Street Journal*, March 13, 1998, 1.

47. POSCO, the only integrated steel producer in Korea, remained healthy during the financial crisis of 1998. Despite a colossal drop in domestic demand, POSCO increased its relative share of the domestic steel market.

48. The information in the text box was derived from the following sources: “POSCO Keeps the Momentum Going,” *Metal Bulletin Monthly*, February 1998; Hannuri Investment & Securities, *POSCO (0549.KS) –Up-shifting Earnings Momentum*, 31 May 1999.

49. Korea Fair Trade Commission, *Joint Anti-Competitive Activities of 11 Scrap Demanding Companies and Korea Iron and Steel Association: Decision No. 98-273* (November 24, 1998). [Hereinafter *KFTC November 1998 Report*] The report investigated anticompetitive practices in the steel sector from April to October of 1998. See also Government of Korea March 9, 1999, response to USTR questions.

50. According to the *KFTC November 1998 Report*, POSCO holds 70 percent of the hot-rolled steel, cold-rolled

steel coil, electrically galvanized plate and wire rod markets, as well as 60 percent of the heavy and thick plate market. POSCO also leads the zinc-coated steel sheet market with a 50 percent share, and a 24 percent share of the tin-coated steel sheet market, surpassed only by Dongyang Tinplate Corporation which holds a 40 percent share. See CMA-Korea, "Part 1. Steel Producers."

51. KFTC, *November 1998 Report*.

52. *Id.*

53. Government of Korea March 9, 1999, Response to USTR's Questions.

54. KFTC *November 1998 Report*. For restricting its sales outlets from handling competing companies products, POSCO was fined 1.64 billion won. The KFTC also found unlawful unfair joint activities of the tin-plated and other flat steel companies, including Posteel, Dongbu Steel, Dongyang Tin Plate and Shinhwa Industries. According to the KFTC, these companies "restrict competition in the market for their products by deciding through agreement ... the selling price for tin-plated flat steel, freight charged to customers' location, and their respective market shares." Posteel was fined 3.3 billion won for these activities. In addition, along with Union Steel and Dongbu Steel, POSCO was found to restrict competition in the color coated steel market by agreeing to and carrying out a 19.5 percent price increase in unfair joint activities. The fine for POSCO was 115 million won. POSCO's total fines came to about \$3.5 million, at the existing exchange rate.

55. *Korean Government Response to USTR's Questions*. April 1999. The policy of setting artificially low hot-rolled coils prices was officially discontinued in 1999.

POSCO has been able to maintain its profitability despite the influence of the government in setting low prices for some products. In 1998, for example, while most Korean steel producers were struggling with huge debt burdens and were close to collapse, POSCO recorded more than \$800 million in profits out of \$7.9 billion in sales, an astounding profit margin of more than 10 percent during Korea's worst post-war economic crisis. As explained above, POSCO's dominant position in the domestic market gives the company a solid and reliable sales base.

POSCO's success during the crisis can, in part, be explained by the company's excellent balance sheets—the company has a very low debt burden and excellent cash flow. Moreover, during 1998, POSCO's exports, which increased by approximately 14 percent from 1997, resulted in higher won-denominated earnings given the 32 percent depreciation of the Korea won. Further, according to one report, the company's foreign currency based revenues exceeded its raw material import costs. This report also explains that this was one reason how POSCO could maintain its operating profit at a time when international steel prices were collapsing and domestic demand had nearly evaporated. Hannuri Investment & Securities, *POSCO (0549.KS) -- Up-shifting Earnings Momentum*, 31 May 1999.

56. POSCO determined domestic prices for some products with reference to the price of imports. Since imports were subject to import duties, POSCO set its domestic price in Korean Won to compete with the duty-inclusive import price. However, for domestic customers purchasing some products to be further manufactured for export, POSCO set the local export at slightly below the duty-inclusive import price because such imports were eligible for duty drawback. See 64 FR 30636, June 8, 1999. More information on this system and Department of Commerce cases in which it was discussed, is available from "Subsidy Programs Investigated by DOC." [http://www.ita.doc.gov/import\\_admin/records/esel/](http://www.ita.doc.gov/import_admin/records/esel/); Internet. The three-tiered pricing structure is also discussed in Korean Government Response to USTR's Questions. April 1999.

57. KFTC, *November 1998 Report*. Moreover, the recent acquisition of shares in the sales outlets by POSCO has meant that the company's power over distributors has become even stronger, which may further restrict new entrants and competitors from entering the market.

58. "POSCO Struggling to Cope with Challenges at Home, Abroad," *The Korea Herald*, November 23, 1998.

59. Government of Korea March 9, 1999, Response to USTR's Questions.

60. "S. Korea Cautions Business on Expansions." *Virtual Steel News*, October 16, 1997 Web site available from <http://www.Virtualsteel.com>; Internet, accessed February 8, 2000. Oh Kang-hyun, then-Korean Deputy Minister for International Trade, noted that the South Korean Government had repeatedly expressed its "hope and desire" that Hyundai would not enter the steel business. "Hyundai wanted to build an integrated steel mill which would have competed with POSCO's position of being the only integrated steel mill in Korea. Samuel Len, "Steel Firms to Face Stiffer Competition," *Korea Herald*, January 10, 2000 "Hyundai's aspirations to secure its own steel supply has been blocked by a government that has been touting a small-business strategy."; Yoo Cheong-mo, "Presidential Hopefuls Advocate Free Market," *Korea Herald*, July 23, 1997 [Kim Dae-jung criticized] the government's opposition to Hyundai's entry into steel-making business; Lee Kap-soo, "Hyundai to Introduce Technology for Construction of Steelworks in Hadong from Germany or Japan," *Korea Herald*, October 29, 1997 "[Hyundai's steel] project, however, is expected to face serious difficulties as the government objects to Hyundai's latest move, citing concerns over a possible glut in steel supply."

61. Catholic University of Korea Professor Mahnsoon Kwack, and Associate Professor Dong Joon Min, interview by Department of Commerce analysts, November 17, 1999, Catholic University of Korea offices, Seoul.

62. KFTC, *November Report*.

63. POSCO's domestic sales figures derived from Government of Korea March 9, 1999, Response to USTR's Questions. Percentages derived for all other Korean producers domestic sales of domestic production is a function of (POSCO's domestic sales/domestic sales of domestic production). Domestic sales of domestic production is a function of (all producers production of finished steel - exports of finished steel). Domestic production of finished steel data from CMA-Korea, "Part 2: The Steel Market and Market Trends: Table 2-1." Exports of finished steel data from Metal Bulletin Research, MBR, *Profile*, 93.

64. CMA-Korea, "Steel Questions Four, Part 3."

65. Figures derived from CMA-Korea, "Part 2: The Steel Market and Market Trends: Table 2-6."

66. POSCO export figures from Government of Korea March 9, 1999, Response to USTR's Questions; data for all other Korean producers derived from Global Trade Information Services, Inc., *World Trade Atlas: Korea CD-Rom*, (June 1999) [Hereinafter GTIS, WTA-Korea].

67. Korean exports of plate to the U.S. increased by over 313,000 tons from 1997 to 1998. It appears that over 80 percent of this increase was exports of plate by Dongkuk. Government of Korea March 9, 1999, Response to USTR's Questions.

68. CMA-Korea, "Steel Market and Market Trends: Part 2.2: Domestic Demand, Table 2-4."

69. Imports of finished steel fell from 5,667 thousand MT in 1997 to 1,980 thousand MT in 1998. Data adapted from Korea Iron & Steel Association, POSCO Research Institute and Korea International Trade Association for CMA-Korea, "Steel Market and Market Trends: Table 2-4." Foreign producers' import penetration (imports as a percent of apparent consumption) for finished steel declined from 15 percent in 1997 to 8 percent in 1998. Compiled from CMA-Korea, "Steel Market and Market Trends: Table 2-4."

70. Exchange rate comparison made on a yearly average. Figures obtained from Federal Reserve Statistical Release H:10, available from <http://www.bog.frb.fed.us/releases/H10/hist>; Internet, accessed May 18, 2000.

71. It's important to note that while Korean finished steel exports to the United States rose by 152 percent in 1998 compared to 1997, U.S. steel imports from Korea rose by 109 percent in 1998 compared to 1997. One of the major sources of such a difference would be the amount of time it takes for the product to be shipped to the United States. In other words, some steel exports that were shipped in 1998 would be counted as U.S. imports in 1999; thus, the export surge and import surge numbers are somewhat different. GTIS, WTA-Korea.

72. *Id.*

73. Korea's exports thus became much more competitive, offsetting some of the loss in domestic demand. According to Bank of Korea information cited in the CMA-Korea, "The Steel Market and Market Trends," the average exchange rate for 1998 was KrW1398.9/1USD. The average exchange rate for 1997 was KrW951.1/1USD. This represents an average depreciation for the Korean won of 32 percent against the US dollar. At the same time, Korea's total exports of goods and services increased by 13 percent in volume terms in 1998. International Monetary Fund, *IMF Staff Country Report No. 00/11: Republic of Korea: Economic and Policy Developments* (Washington, D.C., February 2000), 16.

74. Korea Iron & Steel Association, *Korean Steel Industry Outlook for 1999: Declining Steel Exports in '99 Amidst Rebound in Domestic Demand*, (Seoul, April 1999), 23.

75. CMA-Korea, "Steel Market and Market Trends: Part 2.2: Domestic Demand."

76. *Ibid.*, at table 2.1.

77. Korea Iron & Steel Association, information translated and excerpted for CMA-Korea, "Follow up Questions 2."

78. *Id.*

79. *Id.*

80. GTIS, WTA-Korea. While the volume of Korean exports might be expected to increase substantially due to the decline in domestic demand and the sharp depreciation of the won, to some extent these effects would be offset by the fact that the Korean steel industry relies a great deal on imported raw materials, which are often priced in U.S. dollars. As an importer of raw materials, Korean producers would face significant increases in the won-denominated cost of these imports, to the extent that they were priced in U.S. dollars or were sourced from countries unaffected by the region's financial crisis. These more costly won-denominated raw materials would thus offset some of the advantage gained from the Korean won's depreciation.

81. *Id.*

82. See <http://ia.ita.doc.gov/stats/caselist.txt>; Internet.

83. U.S. Department of Commerce, Import Administration Steel Import Monitoring Program. Figures based on data provided by the U.S. Department of Commerce Bureau of the Census.

84. Id.

85. Indonesia, Malaysia, Singapore, and Thailand

86. According to Bank of Korea information cited in the CMA-Korea, "The Steel Market and Market Trends," the average exchange rate for 1998 was KrW1398.9/1USD. The average exchange rate for 1997 was KrW951.1/1USD. This represents an average depreciation for the Korean won of 32 percent against the US dollar.

87. CMA-Korea, "Steel Questions Four." Note that these value percent increases will be higher than percent increases in volume terms. This is because the depreciation of the won would by itself increase the won-denominated revenue earned on foreign currency sales. Notwithstanding this, even the volume increase was significant for these producers. For example, Dongkuk's exports of plate increased from about 151,000 in 1997 to about 869,000 MT in 1998, an increase of over 475 percent. The company's rebar exports increased even more during the same period, by about 680 percent, in percentage terms. Hannuri Investment & Securities, *Mini-Mills—Turnaround in Sight*, 30 July 1999. Hanbo's exports also surged, from 354,000 MT to 631,000 MT, or almost 80 percent. Government of Korea March 9, 1999, Response to USTR's Questions.

### 3.4 Brazil

1. Conselho Administrativo de Defesa Economica (CADE) Report, Administrative Proceeding No. 08000.015337/94-48. [Hereinafter CADE Report]

2. For example, Brazil's largest steel producer, CSN, stated in its 1998 annual report filed with the U.S. Securities and Exchange Commission that Brazilian home market steel prices historically are higher than those in the export market. See Securities and Exchange Commission, *CSN's 1998 Form 20-F Filing*, 26.

3. Instituto Brasileiro de Siderurgia (IBS), *Anuario Estatístico: Brazil Steel Databook* (Rio de Janeiro, May, 1999), 1/7 and 1/8. [Hereinafter IBS-*Anuario Estatístico*]

4. Id.

5. *Brazil Country Market Analysis*, [Hereinafter CMA-Brazil]

6. CADE Report, 17.

7. Id. U.S. Embassy officials in Brasilia have reported to the Department of Commerce that the companies have appealed CADE's finding to the Brazilian federal courts. They have not paid the fines imposed by CADE, pending the appeal.

8. It is interesting to note that price increases for automobile assembly plants did not increase by the same high percentages, nor at the same rapid pace, as those to other customers. This is due largely to the automobile plants' larger collective bargaining power.

9. Id.

10. Id.

11. "DCR Assessment Finds The Brazilian Steel Industry Poised for Change," PRNewswire, May 11, 1999.

12. CADE Report, 12.

13. "DCR Assessment Finds The Brazilian Steel Industry Poised for Change," PRN Newswire, May 11, 1999.

14. CADE Report, 20.

15. See Chart 3–19 in the Japan section of this chapter.

16. At the same time, opinions regarding the degree of competition that exists among Brazilian producers in the domestic market are not unanimous. In interviews for this report, officials from various Brazilian investment banks stated their opinion that Brazilian steel producers are "fiercely competitive." Interviews with Liberal (Bank of America) and Bozano-Simonsen by Department of Commerce analysts, December 1999, Rio de Janeiro, Brazil.

17. Joseph J. Innace, "Brazil: World class steelmaking, global growing pains," *American Metal Market*, June 23, 1998.

18. As of September 2, 1999, CVRD owned roughly: 10 percent of CSN; 23 percent of Usiminas; 20 percent of CST; and 2 percent of Acominas. See CMA-Brazil, 29, 43, 54, and 83.

19. Source for cross-ownership chart came from Banco Nacional de Desenvolvimento Economico e Social.

20. "Complicated Restructuring Ahead," *Gazeta Mercantil Online*, January 20, 2000. Noting that "there are share investments throughout the [steel] sector," and that "[Steel] companies are shareholders in other, competing steel firms, opening the path for possible conflicts of interest."

21. IBS-*Anuario Estatístico*.

22. In its 1999 finding of collusion to fix steel prices CADE noted that ordinary flat steel products "cannot be

acquired on economically viable terms on the international market.” CADE Report, 47. According to CADE, steel imports are not competitive in the Brazilian market because of “nationalization costs.” “[I]mports are not competitive. The internal price is lower than the world price when nationalization costs are included. ... [T]he domestic market for flat steel products differs from the international market because of the high cost of nationalizing the foreign product—42% for hot-rolled products ... 36% for cold-rolled products ... and 30% for galvanized plate and coils.” CADE Report, 19.

23. Industry Trader interviews by Department of Commerce analysts, December 1999, Sao Paolo, Brazil.

24. This is based on a February 25, 2000, conversation between a Department of Commerce staff member and representatives from Carpenter Technology, a stainless steel producer based in Reading, PA.

25. Industry Trader interviews by Department of Commerce analysts, December 1999, Sao Paolo, Brazil. See also, CMA-Brazil, 118. Brazil’s steel tariff rates for these products are higher than those of some other Latin American countries (*e.g.*, Chile has a flat tariff rate of 11 percent, Venezuela’s rates range from 5 to 15 percent, and Mexico’s range from 0 to 5 percent) and lower than others (*e.g.*, Argentina’s range from 5 to 24 percent). See International Customs Journal, 1998–1999. See OECD, *Steel Trade and Trade-Related Issues 1995–1998, Country Profiles: Ukraine*; CMA-India.

26. CMA-Brazil, 155.

27. Other taxes and fees include brokerage fees, wood burning fees, warehousing fees, a tax on the circulation of goods, and an industrial products tax. CMA-Brazil.

28. U.S. Department of State, *1997 Country Reports on Economic Policy and Trade Practices: Brazil* (Washington D.C.), 4.

29. *Id.*

30. With regard to steel imports, on a December 1999 trip to Brazil, Department of Commerce officials were told that the Brazilian government had suspended the automatic licensing procedures for imports of stainless steel and wire rod. Brazilian officials stated that the suspension of automatic licensing procedures was due to trade disputes. However, the suspension of automatic licensing appears to be a less than transparent process. As noted in a 1999 decision by the European Commission concerning the Brazilian import licensing regime for steel plates, European Community steel producers complained that the Brazilian government suspended automatic licensing procedures for their stainless steel plates and imposed special import payment restrictions on them. The producers complained that “no announcement of [the] change or explanation of the legal basis authorizing the dismissal of licence applications experienced by importers of the Community products was provided by Brazilian authorities, and that the change appeared to result from internal guidelines of the Brazilian administration.” Interview with Brazil’s Ministry of Development by Department of Commerce analysts, December 1999, Rio de Janeiro, Brazil.

31. As quoted in Corinna C. Petry, “A Volatile Outlook for Latin America’s Steel,” *Metal Center News*, March 1999.

32. Evidence suggests that Brazilian stainless steel producers also require distributors to purchase a certain level of all types of steel products. This may serve to artificially maintain production of steel products with less demand. From interview with Brazilian steel industry experts by U.S. Department of Commerce officials, December 1999, Sao Paolo, Brazil. See also Corinna C. Petry, “A Volatile Outlook for Latin America’s Steel,” *Metal Center News*, March 1999.

33. Michael Kepp, “Steel Service Centers Continue to Consolidate,” *American Metal Market*, August 25, 1998. However, other sources say that consolidation of the distribution networks has had positive effects. For instance, some of the large service centers have indicated that “this sector concentration has enabled them to get a bigger slice of the market by using economy-of-scale advantages to reduce their prices.” Further, Brazilian steel officials have been credited with saying that “increased steelmaker control of the distribution system is good for both sides. The mills reduce costs by selling more steel to fewer distributors. ...” Michael Kepp, “Brazil Experiences Consolidation Gains,” *American Metal Market*, August 19, 1997.

34. Corinna C. Petry, “A Volatile Outlook for Latin America’s Steel,” *Metal Center News*, March 1999.

35. “Economy-Brazil: High Interest Rates Hurt in Many Places,” International Press Service, October 22, 1998.

36. IBS-*Anuario Estadístico*.

37. World Trade Atlas Brazil CD-rom (December 1999 ver.).

38. *Id.*

39. *Id.*

40. *Id.* Exports of Brazilian hot-rolled steel dropped from 1,205,570 MT in 1997 to 1,104,150 MT in 1998.

41. *Id.* Exports of hot-rolled steel to the United States increased from 393,000 MT in 1997, or approximately 33 percent of total hot-rolled exports, to 460,000 MT in 1998, or approximately 42 percent of total hot-rolled exports.

42. *Id.* Brazil’s exports of cold-rolled steel to the United States increased from 122,000 MT 1997 to 225,000 MT in 1998, representing a shift from 44 percent of total cold-rolled exports in 1997 to 59 percent in 1998.

43. Id.

44. IBS-*Anuario Estadístico*.

45. CMA-Brazil, pt. 7.1–7.3. CSN's net profit for fiscal year 1998 was U.S.\$384.15 million. Likewise, Usiminas earned a net profit of approximately U.S.\$279.92 million for fiscal year 1998. CST followed this trend, earning a net profit of U.S.\$48.12 million for fiscal year 1998. An exception to this statement is Cosipa. In 1998, Cosipa incurred a net loss of -U.S.\$270.91 million. Cosipa's lack of profitability may perhaps be explained by the short-term debt crisis experienced by the company in 1998.

46. Carbon hot-rolled steel includes hot-rolled sheet, strip and plate-in-coil.

47. U.S. ITC Dataweb available from <http://dataweb.usitc.gov>; Internet. The Brazilian decrease was commensurate with the decreases in average unit values of U.S. imports of carbon cold-rolled steel from Russia and Japan. In January 1998, the average unit value of U.S. imports of carbon cold-rolled steel from Russia was U.S.\$266 per metric ton. In December 1998, this value had decreased to U.S.\$195 per metric ton. Similarly, average unit values of U.S. imports of carbon steel from Japan decreased from U.S.\$328 per metric ton in January 1998 to U.S.\$277 per metric ton in December 1998.

48. Id.

49. See Argentina's Semi-Annual Report Under Article 16.4 of the Agreement to the WTO Committee on AD Practices, August 1999; See also Livia Ferrari, "Argentina Ends Legal Action On Steel," *Gazeta Mercantil Online*, November 19, 1999; Michael Kepp, "Argentina Not Likely To Impose Duties," *American Metal Markets*, February 11, 2000. This will increase to 38,000 tons during year two and 39,000 tons during years three through five.

50. ITC, *Suspension of Antidumping Duty Investigation: Certain Hot-Rolled Flat-Rolled Carbon-Quality Steel Products From Brazil*, 64 Federal Register 38792 (July 19, 1999). Under the World Trade Organization's Antidumping Agreement, dumping occurs when the export price of a product is less than the price for which a like product is sold for consumption on the domestic market. See Agreement On Implementation Of Article VI Of The General Agreement on Tariffs and Trade 1994, art. 2.1.

51. ITC, *Suspension of Countervailing Duty Investigation: Certain Hot-Rolled Flat Rolled Carbon Quality Steel Products From Brazil*, 64 Federal Register no. 38797.

52. ITC, *Suspension of Antidumping Duty Investigation: Certain Hot-Rolled Flat-Rolled Carbon-Quality Steel Products From Brazil*, 38794.

53. Unlike U.S. imports from Japan, in the aggregate, steel imports from Brazil did not surge in 1998. Rather, they declined slightly, at ever lower prices. However, for specific products, such as hot-rolled and cold-rolled steel, imports increased significantly. The overall small drop in Brazilian steel imports from 1997 to 1998 was mostly due to the fall off in semi-finished steel imports. However, Brazilian semi-finished steel imports roared back in 1999, increasing over 70 percent.

## Chapter 4

1. As discussed in Chapter 2, imports of steel mill products in 1998 increased 33 percent or roughly 9 million MT over 1997, the previous record year for imports. Import penetration for steel mill products in 1998 reached 30 percent, an all time high. Import penetration for finished steel products in 1998 reached 26.4 percent, the first time in ten years that the figure exceeded 20 percent. Hot-rolled steel imports in 1998 increased 74 percent or 4.5 million MT compared to 1997, while imports of heavy structurals rose 170 percent, an increase of 1.6 million MT. Imports of reinforcing bar, cut-to-length plate and line pipe in 1998 increased 75, 53, and 37 percent, respectively, compared to 1997 levels.

2. In order to provide effective relief to the industry and U.S. steel workers while addressing particular concerns regarding Russia and Brazil, the Commerce Department negotiated antidumping suspension agreements with Russia in the hot-rolled and cold-rolled steel investigations (the cold-rolled suspension agreement was terminated as a result of the ITC decision), with regard to Brazil an antidumping and countervailing duty suspension agreement was reached in the hot-rolled steel investigations.

The suspension agreements imposed pricing disciplines upon Brazilian and Russian steel shipments to the United States and set annual import quotas on the products involved that greatly reduced shipments to the United States. The agreements also included moratoria on steel shipments that addressed the injury caused by the earlier surges.

3. Final ITC determinations have yet to be made with respect to the two structural beam investigations against Korea, and the investigations on tin mill products and circular seamless stainless steel hollow products.

4. "U.S. Steel Mills Come Under Fire for Uncompetitive Pricing," *Metal Bulletin*, May 19, 2000 available from <http://www.metalnet.co.uk>; Internet. Please note that dates of *Metal Bulletin* articles cited may not correspond to the

date of publication in printed version of *Metal Bulletin*. “Donald Pratt, chairman of Butler Manufacturing Co., a manufacturer of steel buildings, noted that U.S. prices for galvalume are 10–20 percent higher than in Europe and domestic hot-rolled coil prices are at least 20 percent higher. ‘The steel industry must be globally competitive,’ he said. ‘Trade cases only delay the inevitable.’”

Also, “Steel Users Call Attention to Trade Woes,” *American Metal Market*, June 29, 2000, available from <http://www.amm.com>: Internet. “The IADC’s (International Association of Drilling Contractors) senior vice president of government affairs, Brian Petty said, ‘The current system is fatally flawed with bias against consuming industries.’” Please note that dates of *American Metal Market* articles cited may not correspond to the date of publication in printed version of *American Metal Market*.

5. In making this determination, the statute directs the ITC to consider “(1) the timing and the volume of the imports, (2) a rapid increase in inventories of the imports, and (3) any other circumstances indicating that the remedial effect of the antidumping order will be seriously undermined.”

6. The ITC has made affirmative critical circumstances determinations in two antidumping investigations in the past twelve years, *Coumarin from the PRC*, and *Preserved Mushrooms from the PRC*.

7. In 1984, the steel industry successfully pursued a Section 201 case against a wide range of steel imports which resulted in voluntary restraint agreements (VRAs) with major steel exporters to the United States (excluding Canada). VRAs were in place until 1992, having been extended for an additional two years.

8. On July 11, 2000, the ITC made a negative determination in the Section 201 case on imports of crabmeat from swimming crabs.

9. “U.S. Steel Mills Get Government-Backed Loans,” *Metal Bulletin*, July 3, 2000, accessed on July 17, 2000.

10. “Government Board Approves Four Guarantees to Steel Companies,” *Inside U.S. Trade*, July 7, 2000, accessed on July 17, 2000. Also, “Steel Loans Won’t Go Into Major Projects,” *Metal Bulletin*, July 6, 2000, accessed on July 17, 2000.

11. The USG considers the Emergency Loan Guarantee Fund to be consistent with the United States’ obligations under the WTO.

12. The industry believed that the ITC’s granting of equal weight to each of the three years examined in its injury analysis meant that relief could only be sought well after the injury occurred and that the law as it stood was particularly ill-adapted to address the types of import surges that the industry faced in 1998. Legislation was proposed by Representatives Levin and Houghton and Representatives English and Cardin which would require the ITC to grant greater weight to more recent periods when making its injury determinations. The legislation would also lower the industry standard for Section 201 import relief in a manner consistent with the standards set forth in the WTO but less burdensome than that contained in the current statute.

13. President, Metals USA, Insteel Steel Group, Larry G. Brown, “Where Have All the Big Beams Gone?” from excerpts of a speech given in Houston, Texas on December 2, 1999, appearing in the Industry Commentary section of the *American Metal Market* Web site, accessed on February 11, 2000.

14. “Beam Prices Threatened by Oversupply,” *American Metal Market*, June 19, 2000, accessed from the Web site. Producers have also noted previously that the current boom in the building industry can mean that even minor delivery delays prompt claims of shortages. Vice President of Marketing and Sales, Chaparral Steel Co., James Wroble, commenting, in the summer of 1998, on what had then been tightness in the structurals market, stated, “In a strong building market, when someone wants something, they want it now. If it’s not there, they will quickly call it a shortage,” quoted in “Building on Structural’s Advantages,” *Metal Center News Online*, August 1998, available from <http://www.metalcenternews.com>; Internet, accessed on November 19, 1999. Please note that dates of *Metal News Center Online* articles cited may not correspond to date of publication in the printed versions of *Metal News Center Online*.

15. Gurthet states, in the same letter to the editor regarding the article, “Beams take roller coaster ride back to square one,” which appeared in *AMM’s North American Steel* supplement on May 17, 2000:

There is one other issue that I would like to comment on and clarify. The article indirectly quotes Andy Johnson, vice president of AISC Marketing Inc., as saying that trade cases have created supply problems in the industry. That is not the position of the American Institute of Steel Construction. Neither Johnson nor the institute has data to support that position.

16. The information on imports in the bullets that follow were derived from import data reported by Census and AISI.

17. A number of articles in May and June 2000 have noted that price hikes may not hold and that prices are softening: “Another Surge of Imports?” *New Steel*, May 2000, available from <http://www.newsteel.com>; Internet,

accessed on July 7, 2000. Please note that dates of *New Steel* articles cited may not correspond to dates of publication in printed versions of *New Steel*; “U.S. HR Coil Import Prices Slipping,” *Metal Bulletin*, May 9, 2000, accessed on July 7, 2000; “Rate Increases Slow Steel Industry More Than Forecast,” *Wall Street Journal*, June 5, 2000, B4; “Stock Correction Weakens U.S. Steel Prices,” *Metal Bulletin*, June 15, 2000, accessed on July 7, 2000; “Tags Slide as Sheet Buyers Bite Back,” *American Metal Market*, June 19, 2000, accessed on July 7, 2000; and “Rush to Destock Dents Stainless Prices,” *American Metal Market*, June 21, 2000, accessed on July 7, 2000.

Although prices have been on the rise, in several instances, so have costs. Mini-mill producers, largely reliant on scrap as a major input, were hit by sharply higher scrap prices, offsetting much of the gains from price increases. For example, Birmingham Steel average scrap costs in January 2000 were up by over 30 percent compared to January 1999. See “Birmingham Plans to Raise Sections Production,” *Metal Bulletin*, February 24, 2000, accessed on February 24, 2000. More recently, however, renewed weakness in carbon steel scrap prices has been reported.

Prices for stainless steel products rose substantially from the depths of the crisis, although they remain below previous levels. However, much of the stainless steel price recovery has been offset by raw material price increases which in many instances led to higher stainless steel prices through surcharges. Based on estimates provided by *Purchasing Magazine*, the price of nickel, a significant input for many stainless steels, roughly doubled between early 1999 and early 2000. This could translate into an increase in stainless steel costs of over \$500 per metric ton for certain types of stainless steel, more than offsetting the increase in stainless steel prices. In fact, Carpenter Technology, a producer of stainless and other specialty steels, recently stated that despite increases in production, shipping volumes, and pricing, it expected substantial negative effects on its fiscal third-quarter (Jan-March 2000) and full fiscal year earnings resulting from its sharply increased nickel costs. “Carpenter Sees Nickel Nicking Earnings,” *American Metal Market*, March 21, 2000, accessed on March 24, 2000. More recently, however, renewed weakness in nickel prices has been reported.

18. Based on *Purchasing Magazine* prices.

19. Based on *Purchasing Magazine* and *World Steel Dynamics* (cut-to-length plate) prices.

20. Based on Nucor prices. While Nucor’s official public prices remain unchanged, recent press reports indicated that flat-rolled prices were becoming soft and that recently announced price increases might not stick. “Stock Correction Weakens US Steel Prices,” *Metal Bulletin*, June 13, 2000.

21. George J. McManus, “Demand for Steel Rises,” *AISE Steel Technology*, November 1999, accessed on January 12, 2000. The same observer has recently stated that “[t]he inventory bulge left by 41 million [net, or 37 million metric] tons of imports in 1998 was worked off in the first half of 1999.” As quoted by George J. McManus, “A Good Start for the New Century,” *AISE Steel Technology*, January 2000, accessed from Association of Iron and Steel Engineers Web site, January 12, 2000.

22. “Losses Outweigh Profits at U.S. Big Six,” *Metal Bulletin*, February 21, 2000, accessed on June 6, 2000.

23. “U.S. Mini-Mills Boost Profits,” *Metal Bulletin*, February 29, 2000, accessed on March 1, 2000. *Metal Bulletin* included the following companies in its totals: Nucor, Birmingham Steel, the NS Group, Steel Dynamics Inc., Commercial Metals Co., Ameristeel, Oregon Steel, and Bayou Steel. The remaining two companies were not specified.

24. “US Big Six Saw Strong Q1 Earnings,” *Metal Bulletin*, June 6, 2000, accessed on June 6, 2000.

25. Peter F. Marcus and Michael A. Organeck, World Steel Dynamics, *Global Steel Finance* (November 17, 1999), 8. Note that the figures cited in the text are derived from observation of a chart in this publication, which does not present the actual percentages. The same research firm compared the relative performance of the stock prices of U.S. and Canadian integrated vs. mini-mill producers, and found that the performance was very similar. After rising through the spring of 1998, both groups plummeted. Lows were hit in the period from July 1998 to March 1999, and from that point through late 1999 recovery was very limited, with stock prices still down in November 1999 about 30 percent from their levels in January 1997. Peter F. Marcus and Karlis M. Kirsis, World Steel Dynamics, *The Minis and the Majors: How Do They Compare?* (December 16, 1999).

26. “Standard & Poor’s Analysts’ Handbook—January 2000 Monthly Supplement,” Standard & Poor’s, January 2000, 8, 38.

27. Steel industry employment increased in June 2000. The preliminary figures indicate an increase of 1,800 employees. BLS (SIC 331).

28. Because of their reliance upon integrated steel mills for purchases of their product, input suppliers to the U.S. steel industry were directly affected by the steel crisis. Integrated steel producers typically produce molten iron from iron ore, coke, and other raw materials which is then further processed into crude steel in basic oxygen furnaces. Mini-mills typically produce crude steel from scrap and other iron-bearing inputs (e.g., DRI) in electric furnaces. In some instances, significant quantities of traditional inputs, such as coke, have been replaced in the production process by alternative inputs (e.g., pulverized coal, natural gas).

Producers of iron ore and coke, the major inputs into integrated steelmaking, saw a sharp decline in their orders as a result of the production cutbacks undertaken by integrated mills in response to the crisis. Producers in both industries were forced to lay off workers. But unlike workers in the steel industry, workers in the iron mines, taconite (iron ore pellets) plants and coke plants were unable to benefit from Trade Adjustment Assistance because their layoffs were the result of imports of steel products, rather than imports of iron ore or coke, the so-called “like” product that must be imported in order to receive trade adjustment assistance.

In 1999, workers at Thunderbird Taconite applied for trade adjustment assistance because of layoffs and cutbacks resulting from the flood of finished steel imports during 1998, and rising semifinished steel imports in 1999. The surge in finished steel imports resulted in integrated mills cutting back on production which meant cutbacks in taconite (iron ore pellets) purchases. The increase in low-priced semifinished steel imports affected the taconite producers more directly. Mills were choosing to purchase semifinished steel slabs as a substitute for melting the iron ore in blast furnaces and producing slabs directly. The Department of Labor denied the request.

Trade Adjustment Assistance can only be given if the harm to the industry and workers was caused by “like or directly competitive” imports. In denying trade adjustment assistance to workers at Thunderbird Taconite, the Department of Labor ruled that steel imports were not like or directly competitive products, consistent with a 1987 CIT case which affirmed a Labor Department ruling that coal miners were not entitled to TAA when the layoffs were a result of increased imports of steel which led to declining coke production. *United Mine Workers of America v. Brock*, 664 F. Supp. 543 (1987).

Similar “like product” provisions also made it difficult for the input industries to take full advantage of the unfair trade laws. Under the WTO and U.S. law, the industry, unions or trade organizations that file an antidumping or countervailing duty petition against a particular imported product must produce the product. Thus, although imports of dumped or subsidized semifinished or finished steel products may displace sales of iron ore and coke, producers of these products have no recourse to address the problem through the unfair trade laws.

The problem is particularly troubling to the iron ore industry which believes that, even if it could obtain relief under the unfair trade laws on imports of Brazilian iron ore, such relief could be immediately undercut by Brazilian producers shifting to exports of semifinished steel products such as slab. In response to industry concerns, Representative Oberstar from Minnesota has introduced legislation which would modify U.S. law to allow the iron ore industry to bring a case against imports of slab from Brazil. However, a case on slab imports brought by iron ore producers may face difficulties under the WTO agreement.

The input industries are also somewhat hamstrung in their efforts to address unfair trade, because their interest may be at cross-purposes with that of their owners. Most of the iron mines, pellet plants and the coke ovens are owned by the major integrated steel mills which also import a portion of their iron ore and coke inputs and may also import semifinished steel, such as slab, as well.. Like any producer, steel companies are interested in procuring low-priced inputs. The fact that integrated mills imported low-priced semifinished steel while filing cases against low-priced finished steel imports was the subject of several articles in 1999 and is a sore subject with workers in the Iron Range. Chris Adams, “Trade Secrets: Steelmakers Complain About Foreign Steel; They Also Import It—Firms See No Inconsistency Saying Metal They Buy Has Not Been ‘Dumped’—Mills That Need More Slab,” *Wall Street Journal*, March 22, 1999, A1. See Also Tom Bagsarian, “Mills Bring in the Slabs,” *New Steel*, June 1999, 42–45.

29. “LTV Steel Announces Intention to Close Minnesota Iron Mining Operations,” LTV Corporation Press Release, May 24, 2000; and “LTV Shuts Minnesota Mine,” *Metal Bulletin*, May 30, 2000, accessed on June 5, 2000. The Hoyt Lakes operation was the oldest continuously operating taconite facility on the Iron Range, and reports indicate that significant investment would have been required to make the facility competitive. See also “Iron Mine Closure Called an Aberration,” *American Metal Market*, May 25, 2000, accessed on June 5, 2000.

30. Some integrated firms, including Geneva Steel and Ispat Inland, are reportedly considering shifting to electric furnace production. See George J. McManus, “The New Home of Electric Steelmaking,” *AISE Steel Technology*, February 2000, 71–72.

Geneva Steel and Weirton Steel restarted or planned to restart blast furnaces shut down temporarily during the crisis. “Weirton Expects Turnaround This Quarter,” no by-line, *Metal Bulletin*, March 14, 2000, accessed on March 14, 2000, and John E. Sacco, “Geneva Steel Restarts Blast Furnace,” *American Metal Market*, September 9, 1999, accessed on March 21, 2000.

31. In May 2000, Ispat Inland announced that it will retire two of its East Chicago blast furnaces and replace them and steelmaking basic oxygen furnaces with electric arc furnaces. As a result, about half of the company’s 5.4 million MT capacity would be switched over to electric arc furnaces, which use scrap steel rather than iron ore (whether in lump ore form or some further processed form such as pellets, iron ore is used in blast furnaces to produce molten iron, which in turn serves as the primary iron source for the steelmaking basic oxygen furnaces). “Inland Goes

Electric,” *Metal Bulletin*, May 4, 2000, accessed on May 5, 2000. “Mittal Outlines Plans for EAFs at Inland,” *Metal Bulletin*, May 22, 2000, accessed on June 6, 2000.

32. Primarily located in northern Minnesota and Michigan, the iron ore industry in the United States processes mined iron ore into taconite pellets which are used in blast furnaces to make steel. Commercially accessible iron ore in the United States does not have sufficient iron content to be directly consumed as ore in a blast furnace and is converted into taconite pellets. The pelletizing process increases the iron content and also improves the efficiency of the blast furnace by providing a uniform product.

33. Discussions between Department of Commerce officials and representatives of the iron ore industry in Hibbing, Minnesota, October 1999.

34. Average import values from ITC Trade Dataweb.

35. Based on data submitted by the Iron Mining Association of Minnesota.

36. Based on the published 1999 world price of 46.46 cents per iron unit and the tested iron content of CVRD pellets of 62.8 percent iron units ( $46.46 * 62.8 = \$29.18$ ). Submitted by the Iron Mining Association of Minnesota to the Department of Commerce.

37. According to the iron ore industry, the price of slabs typically moves in synch with the price of hot-rolled steel, reflecting, in part, the additional cost of transforming the slab into hot-rolled sheet (approximately \$44 per metric ton based on costs incurred by the five largest U.S. integrated steel producers). In 1997 and 1998, even as prices in hot-rolled steel fluctuated, the gap between the average import price of hot-rolled sheet from all countries and slab from Brazil held steady. Slab prices in both 1997 and 1998 were roughly 80 percent of hot-rolled sheet but dropped to 68 percent in 1999. In the eyes of the industry, the increasing gap between slab and hot-rolled prices is a sign that dumping is taking place. Submitted by the Iron Mining Association of Minnesota to the Department of Commerce.

38. Average import values from ITC Trade Dataweb.

39. Prior to its partial privatization in 1997, CVRD purchased significant shares of Brazil’s major steel producers, including 23 percent of CST, Brazil’s biggest slab producer. (As of September 2, 1999, CVRD owned: 10 percent of CSN; 23 percent of Usiminas; 22.5 percent of CST; and 2.3 percent of Acominas.) CMA-Brazil. The cross-ownership between Brazil’s largest iron ore and slab producers and the continued significant presence of the government in the ownership of CVRD, presents both companies with the opportunity to coordinate their efforts in the home market and abroad, and provides them with the potential for government assistance in the sector.

40. CVRD, in conjunction with BHP of Australia, agreed to take over two Brazilian iron ore companies, Samitri and Samarco. If approved by Brazil’s antitrust authorities, the takeover will boost CVRD’s iron ore mining and pelletizing capacity by about 30 million MT, giving it an estimated 50 to 60 percent share in the world iron ore pellet market. See “CVRD and BHP link up to buy Samitri-Samarco,” *Metal Bulletin News*, June 1, 2000, accessed on June 6, 2000.

41. The industry filed a countervailing duty case against iron ore from Brazil in 1986. The ITC found that the industry was not injured as a result of these imports.

42. “Investing, Licensing & Trading Brazil, January 1999,” *The Economist Intelligence Unit*, 13–18, accessed on May 9, 2000.

43. Until January 2000, furnace and foundry coke were classified under a single HTS number. The ITC is currently conducting a section 332 investigation on foundry coke and, as part of that investigation, will be trying to identify foundry coke imports for 1997, 1998, and 1999.

44. “The Coke Crisis?” paper presented at the 1998 Intertech Conference on the Coke Industry (March 4–6, 1998), accessed from the Internet on May 25, 2000.

45. Tian-Rui Li, Chairman of Shanxi Provincial Government and Economic Trade Commission, “Trend of Coking Industry in Shanxi, China,” a paper presented at Coke Outlook ‘99 (New Orleans, La, February 3–5, 1999), 6.

46. *Ibid.*, 7.

47. *Ibid.*, 7 and chart 3.

48. “The Coke Crisis?,” paper presented at the 1998 Intertech Conference on the Coke Industry, (March 4–6, 1998), accessed on May 25, 2000.

49. Tian-Rui Li, Chairman of Shanxi Provincial Government and Economic Trade Commission, “From 1988 to 1997, China’s coke exports increased ten times ...” as reported in “Testimony submitted by the American Coke and Coal Institute” as part of the *Section 332 Foundry Coke Study* (February 25, 2000).

50. ITC Trade Dataweb.

51. 48 percent of total Chinese coke production and 85 percent of the coke produced in Shanxi, China’s primary cokemaking province, is produced in beehive ovens. If implemented and enforced, new environmental regulations in China may eliminate a significant amount of beehive coke production. An estimated 80 percent of current beehive

production may be shut down by the end of 2000 because of failure to comply with the new environmental standards. See Tian-Rui Li, Chairman of Shanxi Provincial Government and Economic Trade Commission, "Trend of Coking Industry in Shanxi, China," a paper presented at Coke Outlook '99 (New Orleans, La, February 3–5, 1999), 7–8.

52. Mr. Yan Suling, Deputy General Manager of the 5th Department, China National Coal Industry Import and Export Commission as reported in "Testimony submitted by the American Coke and Coal Institute" as part of the *Section 332 Foundry Coke Study*, (February 25, 2000).

## Chapter 5

1. Ministry of Economy of the Russian Federation, *The Development Strategy of the Russian Iron and Steel Industry until 2005* (Moscow, September 1999), translated from Russian.
2. Economist Intelligence Unit, Country Report: Russia, March 1, 2000, 28; Country Report: Russia, May 17, 2000.
3. "Putin Says Economy Soft, Growth Fragile," *The Moscow Times*, July 11, 2000.
4. Cable from U.S. Embassy in Moscow, June 13, 2000, #12425.
5. Id.
6. Economist Intelligence Unit, Country Report: Russia, March 1, 2000, 30.
7. U.S. Embassy cable, June 13, 2000, #12425.
8. "Russian Economic Barometer," *The New Generation*, November 1999. Available from <http://www.newgen.org>; Internet, accessed January 2000.
9. Cable from U.S. Embassy in Moscow, June 13, 2000, #12425.
10. Vice President of Research Caius Rapanu, and Equity Analyst Research, Renaissance Capital Svetlana Smirnova, interviews by Department of Commerce officials, November 9, 1999, Moscow.
11. Metal Bulletin Research Ltd. and InfoMine, *A Profile of the Steel Industry in the CIS* (December 1997), 2. [Hereinafter Metal Bulletin Research Ltd. and InfoMine-CIS]
12. Cable from U.S. Embassy in Moscow, June 13, 2000, #12425.
13. Ministry of Economy, *Development Strategy until 2005*, 4.
14. Director of the Department of Metallurgy within the Ministry of Economy of the Russian Federation Leonid Shevelev, interview by Department of Commerce officials, December 14, 1999, Moscow; President of Russia Union of Metal Exporters S. Z. Afonin, interview by Department of Commerce officials, December 14, 1999, Moscow.
15. InfoMine Research Group, *Market Analysis Research of the Russian Steel Industry*, prepared for the U.S. Department of Commerce (Moscow, January 2000), 25. [Hereinafter Infomine-Russia]
16. Vladimir Putin, "Russia at the Turn of the Millennium," 3, official Web site of the government of the Russian Federation.
17. Putin, 11.
18. "Russian Prime Minister Says Tax Reform Needed to Boost Growth," *Russia Today*, May 25, 2000; "Russia's Kasyanov Calls for Energetic Reforms," *Russia Today*, May 17, 2000, available from [available from http://www.russiatoday.com](http://www.russiatoday.com); Internet.
19. "Russia's Kasyanov Calls for Energetic Reforms," *Russia Today*, May 25, 2000.
20. Putin, 12.
21. Ministry of Economy, *Development Strategy until 2005*, 2.
22. "NTMK moves closer to plate mill contract," *Metals Bulletin*, April 25, 2000; "Russian pipe venture takes shape," *Metals Bulletin*, June 21, 2000; "NTMK gets government support for Mill-5000," *Metals Bulletin*, March 8, 2000.
23. Ministry of Economy, *Development Strategy until 2005*, 5.
24. Id.
25. Clifford G. Gaddy and Barry W. Ickes, "Getting Realistic About Russia: No Time for Illusions," *Brookings Review* (Winter 1999), 47.
26. "Final U.S. Antidumping Determination on Hot-Rolled Plate: Prelude to Weeding out in Steel Industry," *Nikkei Sangyo Shimbun*, June 13, 1999.
27. Japan Iron and Steel Federation statistics. Average monthly shipments to U.S., 1990–97: 221 thousand MT. Average monthly shipments, Jan– Oct 1999: 245 thousands MT.
28. Id.
29. "Exports Change Crude Steel Output Share Among Major Makers," *Nikkei Weekly*, October 26, 1999.
30. "Nissan Narrows Steel Suppliers to 3," *Nihon Keizai Shimbun*, January 28, 2000. Note that these changes in steel purchasing by major automotive customers were also discussed by industry sources in interviews for this report.

31. *Nihon Keizai Shimbun*, January 28, 2000.
32. *Id.*
33. *Id.*
34. “Japanese Investment Banking,” *Financial Times Survey*, May 8, 2000, 1.
35. In interviews for this report, industry experts in Japan speculated that other integrated firms could be forced out of business, or have their operations substantially reduced, in the event of increased competition from Nippon Steel.
36. “Nippon Steel’s Blast Furnace Capability Will Increase by 10%,” *Nikkei Weekly*, April 16, 1999, 1.
37. *Id.* Nippon’s view of POSCO as a threat was also discussed in an interview for this report.
38. “Nippon Steel’s Blast Furnace Capability Will Increase by 10%,” *Nikkei Weekly*, April 16, 1999, 1.
39. “Exports Change Crude Steel Output Share Among Major Makers,” *Nikkei Weekly*, October 26, 1999. Regarding changes in production share due to changes in production for export. See also “Final U.S. Antidumping Determination on Hot-Rolled Plate: Prelude to Weeding out in Steel Industry,” *Nikkei Sangyo*, June 13, 1999, regarding continued restraints on domestic production. Iketani interview confirmed same facts.
40. Merrill Lynch, *Japan In-depth Report* (December 9, 1998), 5.
41. Peter F. Marcus and Sherly Iwanski, World Steel Dynamics, *Price Track #64* (February 28, 2000), 2–3.
42. These two mergers included 1) the merger between Fuji Bank, the Industrial Bank of Japan (IBJ), and Dai Ichi Kangyo Bank (DKB); and 2) the merger between Sakura Bank (formerly the Mitsui Bank and Taiyo Kobe Bank) and Sumitomo Bank. Fuji Bank, IBJ and DKB have been the main banks for four of the five major steel producers, while Sumitomo has been the main bank of Sumitomo Metal.
43. “Bank Alliance To Force Shake-Out of Other Industries,” *Nihon Keizai Shimbun*, August 27, 1999.
44. Merrill Lynch, *Japan Macro Overview* (October 1999), 8.
45. Paul Abrahams & Gillian Tett, “The Circle Is Broken,” *Financial Times*, November 8, 1999, 18. Another incentive for banks (and other keiretsu members) to unwind their cross-shareholding arrangements comes from changes in the Japanese accounting system which begin to go into effect during fiscal year 2000 (ending March 31, 2001). “Analysis: Accounting ‘Big Bang’ Looms Over Corporate Recovery,” *Nihon Keizai Shimbun*, March 31, 2000; “Analysis: Banks Breaking Links With Ailing Customers,” *Nihon Keizai Shimbun*, March 31, 2000. One of these changes is that stock investments must be valued according to market worth instead of purchase cost. “Analysis: Accounting ‘Big Bang’ Looms Over Corporate Recovery,” *Nihon Keizai Shimbun*, March 31, 2000; “Analysis: Banks Breaking Links With Ailing Customers,” *Nihon Keizai Shimbun*, March 31, 2000. “In April, the country is switching to a more stringent system of consolidated accounting. ... Once the criterion for consolidation switches from majority ownership to ‘effective control,’ the finances of many more subsidiaries will be revealed. ... Once firms must mark their cross-shareholdings to market, there will be more incentive to unwind them. Those showing a loss on the shares will no longer be able to hide it by hanging on to them.” “Japan Restructures, Grudgingly,” *The Economist*, February 6, 1999.
46. Paul Abrahams & Gillian Tett, “The Circle Is Broken,” *Financial Times*, November 8, 1999, 18.
47. “Bank Alliance To Force Shake-Out of Other Industries,” *Nihon Keizai Shimbun*, August 27, 1999.
48. Paul Abrahams & Gillian Tett, “The Circle Is Broken,” *Financial Times*, November 8, 1999, 18.
49. “Survey of Business in Japan,” *Economist*, November 27, 1999, 17; “Japanese Finance-Born Again Leader,” *Economist*, July 10, 1999, available from <http://www.economist.com/archive>; Internet.
50. Based on an exchange rate of \$1 = 105 yen. Nippon Steel Corp. owed 90.7 billion yen, NKK 95.8 billion yen, Kawasaki Steel Corp. 56.6 billion yen and Kobe Steel 86 billion yen to Fuji Bank, IBJ and DKB. “Bank Alliance To Force Shake-Out of Other Industries,” *Nihon Keizai Shimbun*, August 27, 1999.
51. Various other steel and banking industry officials have publicly commented on the effect of these bank mergers on the steel industry. An IBJ source stated that because the three banks plan to standardize their loan assessment criteria, “[t]his may lead to a common standard higher than before because we will disclose bad debt to one another.” As a result, companies which do not meet the higher standards will have a more difficult time getting loans. “Bank Alliance To Force Shake-Out of Other Industries,” *Nihon Keizai Shimbun*, August 27, 1999.
52. *Id.*
53. Materials provided by Development Bank of Japan; “Survey of Business in Japan,” *Economist*, November 27, 1999, 17; “Japanese Finance-Born Again Leader,” *Economist*, July 10, 1999.
54. This law provided “specified Japanese industries,” one of which was steel, a series of tax breaks, low interest loans and other financial incentives to encourage reform efforts. As of April 1998, Kobe Steel, Sumitomo, and NKK, as well as several mini-mills, qualified for various measures under the Business Reform Law.
55. “Sumitomo Metal on Course for Restructuring,” *Jiji Press Ticker Service*, November 1, 1999, 1; See also “Sumitomo Metal Indus to Receive Govt. Aid for Restructuring,” *Nihon Keizai Shimbun*, November 12, 1999.

56. U.S. government sources.
57. "Industrial Revitalization Law: Fuji Heavy Industry, Mitsubishi Chemical to Apply Aiming at Lightening Their Registration and Licensing Tax; Only One Out of 20 Companies Actively Scrapping Plant and Equipment," *Nihon Keizai Shimbun*, March 10, 2000, 3.
58. "Can Companies Revitalize by the 'Revitalization' Law; Scrapping of Excess Capacity Should be Private Business Decision; Companies Depending Too Much on 'Bureaucrats'," *Nikkei Editorial*, March 10, 2000.
59. Under its business restructuring plan, Sumitomo intended to set up by late November, 1999, a company capitalized at around 27 billion yen for the rod operations and another for the stainless steel operations, capitalized at 5.5 billion yen. In addition to spinning off these two operations, Sumitomo is also planning to halt a seamless pipe production line at its factory in Wakayama Prefecture by the end of March, 2000. "Sumitomo Metal Industries to Seek Tax Breaks," *Japan Economic Newswire*, October 29, 1999.1.
60. "Sumitomo Metal Indus to Receive Govt. Aid for Restructuring," *Jiji Press Ticker Service*, October 26, 1999, 1; *Nihon Keizai Shimbun*, November 12, 1999; *Kyodo News Service*, October 29, 1999.
61. Organization for Co-operation and Development, *OECD Review of Regulatory Reform in Korea* (Paris, June 2000), cited in Peter Montagnon, "OECD warns South Korea of 'complacency' over reforms," *Financial Times*, June 2, 2000. See also Kwak Young-sup, "Financial regulator warns of second financial crisis," *Korea Herald*, March 9, 2000. "Financial Supervisory Commission (FSC) Lee Yong-keun yesterday issued a stern warning that Korea may be thrown into a new financial crisis if banking sector reform is delayed further...Lee's remarks are the first indications of concerns among high-ranking government officials that Korea may be catapulted into a fresh financial crisis if banking reform hits the rocks."
62. See the discussion on Korean bank lending practices in Chapter 3.
63. Korea Market Insight Ltd., Seoul, "Restructuring and Capacity," *Customized Market Analysis of the Korean Steel Industry* (December 1999–May 2000) [Hereinafter CMA–Korea].
64. International Monetary Fund, *Republic of Korea: Economic and Policy Developments*, IMF Staff Country Report No. 00/11, (Washington D.C., February 2000), 67-90 [Hereinafter IMF-Country Report]; see also Organization for Economic Cooperation and Development, *Economic Survey of Korea, 1999* (Paris, July 1999), 10. [Hereinafter OECD–Korea]
65. CMA-Korea, *The Korean Steel Industry: Part 1.2: Inchon Iron & Steel Co. Ltd.*
66. "Steel Firms to Face Stiffer Competition," *The Korea Herald*, January 10, 2000.
67. "Japanese Investment Company Acquires Hyundai Pipe Corp," *The Korea Herald*, January 6, 2000.
68. Hwang Jang-Jin, "Seoul unveils final plan for sale of state firms," *Korea Herald*, February 2, 2000, accessed on June 13, 2000.
69. Kwak Young-up, "Overseas sale of POSCO stakes put off," *Korea Herald*, June 22, 2000, accessed on June 22, 2000.
70. "Gov't Postpones Issuing POSCO Drs O'seas," *Korea Times*, June 21, 2000, accessed on June 22, 2000.
71. OECD, *Economic Surveys 1998–1999 Korea*, (Paris, July 16, 1999); World Bank, *Korea: Macroeconomic Update*, (Washington, D.C.: January 31, 2000).
72. OECD-Korea, 77–103, World Bank-Korea.
73. IMF Country Report, 86–87.
74. OECD-Korea, 77–103.
75. Notably, among major commercial banks, the Korean government nationalized two large banks (Korea First Bank and Seoul Bank) in January 1998, acquiring a 94 percent equity stake in each of the two institutions. Kookmin passed Hanvit to become the nation's largest commercial bank but is now 94 percent government-owned as a result of an injection of W 7.8 trillion from the Korea Deposit Insurance Corporation (KDIC) (in addition to having the authority to guarantee deposits in failed financial institutions, the KDIC is authorized to provide recapitalization funds) (see World Bank–Korea, 5). In April 1999, Chungbuk merged with Cho Hung and Cho Hung further merged with Kangwon Bank in September 1999. Because KDIC funds were used to facilitate these mergers as well, the government owns more than 90 percent of Cho Hung. Park, *Financial Sector*.
- With respect to latest developments for these nationalized banks, U.S. based Newbridge Capital purchased a 51 percent interest in Korea First Bank in December 1999. The sale of Seoul Bank remains uncertain as a result of the collapse of purchase negotiations with Hong Kong and Shanghai Banking Corporation. In the meantime, the government has indicated that it remains committed to selling the bank to foreign investors and has retained Morgan Stanley Dean Witter to assist in finding an international CEO and management team to take management control in the interim. As for Cho Hung Bank, the government is planning to raise additional capital through the issuance of GDR's, and will then sell its shares in the market. World Bank-Korea at 5. No timetable has been disclosed. In addition

to the use of government funds, foreign investment has been a significant factor in the recapitalization of the domestic banking sector. Notably, the International Finance Corporation invested \$152 million in Hana Bank, Germany's Commerzbank acquired a 30 percent equity stake in Korea Exchange Bank for \$249 million, and ING Group purchased a 10 percent stake in Housing and Commercial Bank for approximately \$280 million. Park, *Financial Sector*, 27–28; OECD-Korea, 16; IMF Country Report, 72–76; *Korea Letter of Intent and Memorandum of Economic Policies*, November 24, 1999, 6.

76. Michael Schuman, "South Korea Risks Deepening Crisis As Ailing Firms Cling to Old Patterns," *The Wall Street Journal*, March 13, 1998.

77. The principal objectives in the reform measures include: 1) strengthening accountability in management and strengthening the rights of minority shareholders; 2) enhancing transparency; 3) eliminating cross-debt guarantees between firms affiliated with the chaebols; 4) liberalizing capital markets and foreign direct investment; and 5) improving insolvency procedures.

To address *accountability* problems, Korea amended its Commercial Code in 1998 to strengthen the rights of minority shareholders to counterbalance the leverage exercised by the large shareholders, who are typically family members of chaebols. Voting right restrictions for institutional investors were abolished, cumulative voting was introduced and ownership thresholds to institute derivative suits were lowered. To increase the accountability of management and Board of Directors, the Commercial Code was amended to require listed companies 1) to appoint outside directors to fill one-fourth of their board seats and 2) to disclose the election and dismissal of any outside director. Further amendments in the Commercial Code clarifies the fiduciary duty of directors and permits class action suits against directors.

To address Korea's lax *transparency* requirements, the government took various steps to improve the quality and timeliness of financial statements, such as: 1) mandatory consolidated group financial statements for the top 30 chaebol; 2) quarterly reporting for listed companies; and 3) for listed companies affiliated with the top thirty chaebols establishment of audit selection committees within the company that include outside directors and major creditors and shareholders. In addition, the government amended the Financial Accounting Standards Act in December 1998 to reflect international accounting standards. Significant changes include: "[1] the elimination of deferrals for realising assets and liabilities; [2] the introduction of new rules for the accounting of derivatives; [3] the adoption of limits on asset revaluation; and [4] a reduction in the scope for shifting between different accounting standards in corporate accounts." Also, listed companies with assets in excess of W 100 billion must now appoint a full-time statutory auditor. Lastly, the role of the Korea Institute of CPAs (KICPA) as an independent professional auditing body has been enhanced, and it is now entrusted with the regulation of the auditing profession.

In order to address problems caused by *cross-debt guarantees*, following the crisis, Korea made amendments to the Fair Trade Act to prohibit new guarantees among chaebol affiliates and to require that existing guarantees be phased out by March 2000. The OECD notes that approximately half of the guaranteed loans reached maturity before 2000, but that the removal of guarantees on certain of the 30 percent that expire in 2000 and the remaining 20 percent that expire the following year will require negotiations between banks and the companies extending the guarantees. A few of the measures to dispose of these guarantees include assessing additional interest on the loan, requiring advance payment of principal, requiring guarantees from owners of companies and conversion into real estate-secured loans. The government has also ordered affiliates of the top five chaebols to remove their guarantees between affiliates in different industries, for concern that such practices may complicate corporate restructuring. To address the problem of chaebol's extremely high level of corporate debt, the government required each of the top 64 *chaebols* to complete agreements, called Capital Structure Improvement Plans (CSIPs), with their creditor banks to reduce debt to equity levels to 200 percent.

The government, in December 1997, *liberalized capital markets* and its foreign investment regime. The objective was to encourage companies to seek much needed capital by tapping equity and corporate bond markets, thereby reducing bank financing and creating a more balanced capital structure. The following measures were implemented: "[1] ceilings on foreign investment in equity, bond and money markets were completely eliminated; [2] restrictions on corporate borrowing abroad were lifted; [3] foreign ownership in most industries, including financial industries, was fully liberalized; [4] a "one-stop service" was established to simplify the approval process for foreign investment; [5] hostile takeover rules and other anti-takeover devices to protect existing management were removed; [6] asset-backed securitization vehicles and mutual funds were permitted; [7] restrictions on foreign investors to purchase land for investment projects were eliminated." See IMF Country Report, 91–115, OECD-Korea, 34–36.

78. OECD-Korea, 62–63; World Bank-Korea, 12.

79. World Bank–Korea, 12.
80. Seong Min Yoo, “Corporate Restructuring in Korea: Policy Issues Before and During the Crisis,” *Joint U.S.-Korea Academic Studies*, Volume 9, 1999, *Korea and the Asian Economic Crisis: One Year Later*, 169. [Hereinafter Yoo, *Corporate Restructuring*]
81. Organization for Economic Cooperation and Development, *Asia and the Global Crisis-The Industrial Dimension* (Paris, 1999), 75.
82. Id.
83. Yoo, *Corporate Restructuring*, 169–170.
84. OECD-Korea, 130.
85. Yoo, *Corporate Restructuring*, 170.
86. OECD-Korea, 130.
87. Id. The top 5 chaebols are involved in a separate restructuring scheme, called “Big Deals” which consist principally of mergers and acquisitions among affiliates of the top 5 to promote core competencies . These deals address key industries such as oil refining, petrochemicals, semiconductors, aerospace, power generation, shipbuilding and the auto industry (steel industry is not covered).
88. Id.
89. Id.
90. Dollar value based on September 1999 Federal Reserve exchange rate of \$1 = W1201.
91. World Bank-Korea, 11.
92. Bloomberg, *Brazil Antitrust Agency to Probe CSN, Usiminas, Cosipa*, May 9, 2000.
93. Michael Kepp, “Brazil bank willing to finance steel consolidation,” *American Metal Market*, September. 2, 1999, 3.
94. Geoff Dyer, “Baton passes on in Brazil: Winning CVRD auction puts Steinbruch family in the ascendancy,” *Financial Times*, June 26, 1997, 41; “DCR Assessment Finds The Brazilian Steel Industry Poised for Change” PRN Newswire, May 11, 1999.
95. Joseph J. Innace, “Brazil: World class steelmaking, global growing pains,” *American Metal Market*, June 23, 1998.
96. Id.
97. Rumors of other mergers include current speculation that a few large steel producing groups will be formed. One group may contain slab-producer CST, stainless steel producer Acesita, and two of Brazil’s major flat steel producers, Usiminas and Cosipa. A second group may contain Brazil’s largest flat steel producer, CSN, and Gerdau (a conglomerate of primarily non-integrated, non-flat steel producers). Competing rumors indicate that Usiminas would join the CSN group instead and that Gerdau may instead merge with Açominas, predominately a steel billets producer, to form a large non-flat steel producing block. A merger of Usiminas and CSN would also involve Usiminas-controlled steel producer, Cosipa. However, a Brazilian steel market research report indicates that a merger of Usiminas/Cosipa and CSN would be highly unlikely due to inefficiencies that may be created from such a merger and opposition from Usiminas’s clients.
- Other widely circulated industry rumors suggest that Previ and CVRD will sell their ownership interests in CSN. Additionally, the Vicunha Group would sell its substantial holdings in both CVRD and CSN. These moves would help to disentangle CSN and CVRD and eliminate possible conflicts of interest.
- See CMA-Brazil. See also “DCR Assessment Finds The Brazilian Steel Industry Poised for Change” PRN Newswire, May 11, 1999.
98. CMA-Brazil, sec. 2.4, question 2. In Brazil, U.S. officials were told that it would not be feasible for Usiminas to let Cosipa go bankrupt in light of its location in Sao Paolo, where steel buying and jobs are focused. If Usiminas had let Cosipa go bankrupt, another producer would have purchased Cosipa and Usiminas would have lost a large share of its market. Trip Report; see also CMA-Brazil, sec. 2.4, question 11.
99. Innace.
100. U.S. Department of State, 1997 Country Reports On Economic Policy and Trade Practices: Brazil, 4.
101. Id.
102. Foreign exporters to Brazil prefer to ship larger volumes, and the ports are set up to handle a minimum of 20 ton containers. Therefore, small shipments are rare, if not impossible. From Industry Trader interviews by Department of Commerce officials, December, 1999, Sao Paulo, Brazil.
103. From Industry Trader interviews by Department of Commerce officials, December, 1999, Sao Paulo, Brazil.
104. International Monetary Fund. Letter of Intent Policy Memorandum and Request for Financial Support from the IMF, November 13, 1998.

## Chapter 6

1. U.S. ITC, *Suspension of Antidumping Duty Investigation: Certain Cut-to-Length Carbon Steel Plate From the Peoples Republic of China*, 62 FR 61773 (November 1997); U.S. Final Determination, *Certain Cold Rolled Flat-Rolled Quality Steel Products From the People's Republic of China* (May 2000) 65 FR 34660.

2. The term “state-owned enterprise” in China historically has meant a non-incorporated enterprise “owned by all the people,” but in reality owned by no one and effectively controlled by a government ministry or a local or provincial government. The term “state-owned enterprise” today also includes Chinese companies in which there is stockholding by private or other non-government investors, but where the government (including government ministries and other proxies) retains majority ownership or control.

3. Metal Bulletin Research and Battelle, *A Profile of the Steel Industry in China* (London and Columbus, Ohio, February 2000), 6. [Hereinafter MBR/Battelle]

4. International Iron and Steel Institute (IISI), *1999 World Crude Steel Production Data* (Brussels).

5. “China to Shutter Small Steel Plants, Cut Output,” *Reuters*, January 10, 2000.

6. “On the Front,” Shanghai Baosteel Group Corporation, September 1999. Iron and Steel Yearbook of China, 1998, 89. Edward S. Steinfeld, *Forging Reform in China: The Fate of State-Owned Industry*, (Cambridge: Cambridge University Press, 1998).

7. Nicholas R. Lardy, *China's Unfinished Economic Revolution*, (Washington, D.C.: Brookings Institution Press, 1998), 28–30, 39–43, 54–56, 83, 119. See also Steinfeld, *Forging Reform in China: The Fate of State-Owned Industry*.

8. MBR/Battelle, 62.

9. Chinese government officials, interview by Department of Commerce officials, January 10–12 and February 28–March 1, 2000. China-based steel industry analysts believe that industry capacity is as high as 190 million MT. The 140 million MT figure is therefore conservative.

10. Shougang Iron and Steel Research Institute staff, interview by Department of Commerce officials, January 11, 2000, Diaoyutai State Guesthouse, Beijing.

11. Chinese government official, interview by Department of Commerce officials, February 28, 2000, Beijing.

12. MBR/Battelle, 65.

13. Bureau of Labor Statistics (BLS), “Table B–1: Employees on Non Farm Payrolls by Industry.” See also MBR/Battelle, 137.

14. “China's Next Leap Forward,” *Reuters*, January 10, 2000. See also William Hogan, *The Steel Industry of China* (New York: Lexington Books, 1999), 13. The 3 million plus people employed in the steel industry represent about 3 percent of total state-owned enterprise sector employment. See also The Editorial Board of the Yearbook of Iron and Steel Industry of China, *1999 China Iron and Steel Yearbook* (Beijing, June 1999), 25, 59. [Hereinafter *1999 China Iron and Steel Yearbook*]

15. 1999 employment figure of 153,600 from Bureau of Labor Statistics Data, *National Employment Hours and Earnings*, Series ID: EEU31331201 (for SIC 3312); 97 million MT U.S. crude steel output figure for 1999 from IISI

16. Baoshan Corporation officials, interview by Department of Commerce officials, March 1, 2000, Baoshan Corporation headquarters, Shanghai. This figure applies to Baoshan's core steel operations, before Baoshan's 1998 merger with several Shanghai-based steel firms that increased Baoshan's workforce from 11,000 to over 130,000.

17. MBR/Battelle, 4.

18. *Ibid.* Layoffs in this context are an intermediate form of unemployment that is a transition measure to full separation from the firm.

19. Thomas G. Rawski, “China's Move to Market: How Far? What Next?” *Cato Institute Conference Volume (forthcoming)*, 10.

20. The private sector is a huge potential employer of displaced state-owned enterprise workers. Private sector activity is expanding rapidly, propelled by decentralization and increased economic and business opportunities. The private sector is now the most dynamic part of China's economy. However, the development and growth of the private sector remains constrained due to obstacles that limit the flow of resources into the private sector. Private enterprises in China have no access to readily available credit and are subject to predatory taxation by local authorities. The 1998 constitutional amendment that recognizes the private sector as an “important component” of the economy will legitimize efforts by reform-oriented local governments to relax these constraints and promote private sector growth and development. But greater direction and guidance from the top is needed. *Ibid.*, 10–11.

21. MBR/Battelle, 63.

22. “PRC Iron, Steel Industry Restructured,” *Daily Report China*, FBIS-CHI, March 13, 2000.

23. “PRC's Steel Industry Heavily Overhauled,” *Daily Report China*, FBIS-CHI, February 2, 2000.

24. 24. "Hard Times for China's Steel Market," *China Online*, October 4, 1999.
25. MBR/Battelle, 164–165 and *1999 China Iron and Steel Yearbook* 54.
26. *Ibid.*, 62.
27. *Ibid.*, 11.
28. *Ibid.*, 167.
29. U.S. Census Import Data.
30. U.S. Department of Commerce public affairs fact sheets for antidumping investigations of cut-to-length plate and cold-rolled flat-rolled carbon-quality steel from the PRC.
31. "Outline of the Ninth Five-Year Plan for the National Economic and Social Development and the Long-Term Target for the Year 2010 of the People's Republic of China," *Daily Report China*, FBIS-CHI, April 17, 1997.
32. The now defunct Ministry of Metallurgical Industries (MMI) previously controlled production and distribution of state-owned enterprise output, approved large-scale investment projects, and arranged the supply of energy, raw materials and rail transport. MBR/Battelle, 59–60.
33. MBR/Battelle, 60.
34. Massachusetts Institute of Technology Professor Edward S. Steinfeld, and Harvard University, Visiting Professor Thomas Rawski, interview by Department of Commerce officials, January 24–25, 2000, Cambridge, MA.
35. Rawski interview.
36. Gong Zhengzheng, "Steel Gets Support for Upgrades," *China Daily (Business Weekly)*, July 12, 2000. See also Wang Qi "Where Does China Go After the Fourth Party Plenum," *J&A Securities Hong Kong* (October 1999), 18. Mr. Wang refers to 9 billion yuan in interest subsidies for loans to finance technological upgrading and transformation of 512 specially chosen state-owned enterprises and 120 corporate groups in metallurgical, non-ferrous metal, petrochemical, textile, machinery and electronics industries. These subsidies are expected to cover 180 billion yuan in loans.
37. "List of PRC Key Construction Projects Unveiled," *Daily Report China*, FBIS-CHI, May 14, 1998. Also, "State Sets Key Construction Projects for 1996," *Daily Report China*, FBIS-CHI, May 29, 1996.
38. Thomas G. Rawski, "China's Move to Market: How Far? What Next?" *Cato Institute Conference Volume (forthcoming)*. Rawski points out:  
 The influence of government administrators over investments decisions stands out. At the macro-level, government agencies use annual investment and credit plans to control the size of overall investment. And at the micro-level, efforts to expand the independent management capabilities of enterprise managers and bank executives have failed to eliminate the key role of government offices in investment decisions...  
 Despite huge progress in the direction of market operation, it is not yet possible to classify China's economy as a market system. China remains outside the realm of market economies because of an unreformed investment mechanism, which remains largely controlled by public officials rather than by the profusion of independent coalitions typical of market systems. Administrative management of China's investment system leaves its distinct imprint in the form of a seasonal macro-economic roller-coaster...(7,8)
39. Average annual investment in technological upgrading and transformation in the iron and steel industry increased from 7.1 billion yuan during the period 1986–1990, to 19.3 billion yuan for the years 1991–1995, to 25.1 billion yuan for the period 1996–1998. During the period 1996–1998, annual investment declined slightly from 25.8 billion yuan in 1996, to 24.9 billion in 1997, to 24.5 billion yuan in 1998. *1999 China Iron and Steel Yearbook*, 38. Making a CPI-based adjustment for inflation, using 1986–1990 as the base period, and adjusting to the mid-point of each averaging period, the corresponding figures are 7.1 billion yuan for 1986–1990, 12.6 billion yuan for 1991–1995, and 10.2 billion yuan for 1996–1998. For the three-year period 1996–1998, the annual inflation-adjusted investment figures are 10.7 billion yuan, 10.0 billion, and 9.9 billion yuan, respectively. The slowing of investment in technological upgrading and transformation is, most likely, a reflection of government efforts to maximize available funds and to be more selective in choosing recipient firms. See IMF, *International Financial Statistics*, 1999, for yearly CPI data.
40. "Ninth 5-Year Plan Focuses on Seven Major Industries," *Daily Report China*, FBIS-CHI, August 31, 1996. All yuan-to-dollar conversions made at the rate of 8.3 yuan/US\$.
41. MBR/Battelle, 75–78.
42. Phase III of Baoshan's construction, covered under the ninth five-year plan (1996–2000), is nearing completion. Under phase III, Baoshan has installed or is in the process of installing two converters with an annual

capacity of 3 million MT; one electric-arc furnace with an annual capacity of one million MT; one hot-rolling mill with an annual capacity of 2.8 million MT; two slab casters with an annual capacity of 2.8 million MT; one cold-rolled mill with an annual capacity of one million MT; one wire rod mill with an annual capacity of 400,000 MT; one hot-dipped galvanizing line with an annual capacity of 350,000 MT; one electrolytic galvanizing line with an annual capacity of 250,000 MT; one silicon strip line with unknown annual capacity; an electrical steel line with an annual capacity of 350,000 MT; a stainless steel cold-rolling mill with an annual capacity of 80,000 MT; and two tin-plating lines with an annual capacity of 400,000 MT. The stainless steel cold-rolling mill is a joint venture that purchased its equipment and technology from Japan's Mitsubishi Heavy Industries. The 1 million metric ton per year cold-rolling mill—bought from NKK-CAL of Japan—will supply thin sheet, between 0.3 and 1.6 mm in thickness and 730 and 1,430 mm in width, to the automotive industry. The hot-dipped galvanizing and electrolytic galvanizing lines—purchased from Andritz of Austria—will also be used to produce automotive-quality galvanized sheet, between 0.3 and 2.0 mm in thickness and used to produce galvanized sheet for automotive use. Baoshan has also ordered automation equipment from Atlas Technologies of the United States to improve the quality of its automotive sheet, with the goal of supplying 85 percent of domestic demand for such sheet by the end of 2000. Baoshan is currently the only Chinese producer of electrolytic galvanized sheet and one of only two producers of automotive-quality cold-rolled sheet. Baoshan is expanding and one of only two producers of cold-rolled sheet for automotive applications. Baoshan is expanding and modernizing an existing cold-rolling mill with an annual capacity of 700,000 MT that will be used to feed its two new tinplating lines. Baoshan is also upgrading its wire rod production facilities. Morgan Construction of the United States recently completed construction of a mill that produces high tensile-strength quality wire rod ranging in size from 5 mm to 25 mm, with tolerances of 0.1 mm. This mill has an annual capacity of 400,000 MT. MBR/Battelle, 75–78.

43. *Ibid.*, 73, 135. See also World Bank/International Finance Corporation. This joint venture will establish the largest stainless steel coil production facility in China, including modern EAF steelmaking capability, continuous casting technology, and hot-rolling and cold-rolling mills. KTN has supplied state-of-the-art equipment and technology for this project. Initial installed capacity, to begin operation in 2001, will be set for annual production of 72,000 MT of cold-rolled, bright-annealed sheet and strip. Long-term plans are to raise capacity to an annual production level of 440,000 MT of flat-rolled stainless steel products by 2006, which will virtually eliminate imports by then. The cost of this single production line is approximately US\$300 million, with a long-term plan for a fully integrated stainless steel mill at a cost of approximately US\$1.4 billion.

44. *Ibid.*, 151.

45. Cockerill Sambre of Belgium will supply a 300,000 MT per year galvanizing line, and existing lines will be upgraded to boost annual capacity from 150,000 MT to 250,000 MT and total hot-dipped galvanizing annual capacity to 550,000 MT in 1999. An additional galvanizing line with an annual capacity of 64,000 MT will be installed to produce color-coated galvanized sheet. *Ibid.*, 152–153.

46. Also, during the period 1991–1996, new investment in Wuhan's cold-rolled mill resulted in an increase in silicon steel annual capacity from 70,000 MT to 265,000 MT. The silicon steel production improvements were supported by Nippon Steel which supplied two twenty-roll Sendzimir rolling stands, a pickling line, and auxiliary facilities for welding, annealing, and finishing. *Ibid.*, 153–154.

47. *Ibid.*, 67–71.

48. *Ibid.*, 137–140.

49. *Ibid.*, 157–158.

50. *Ibid.*

51. "The Decision of the Central Committee of the Communist Party of China (CPC) on Major Issues Concerning the Reform and Development of State-Owned Enterprises," *Daily Report China*, FBIS-CHI, September 26, 1999. See also "Several Questions Meriting Attention in the Current Development of Enterprise Groups," *Daily Report China*, FBIS-CHI, February 27, 1998.

52. Synthesis Note by the OECD Secretariat, *State Owned Enterprise Reform in China*, July 20–21, 1998, 7.

53. *Business Overview*, Web site available from <http://www.baosteel.com>; Internet. See also "Baoshan Steel and Dongbei University Launch Software Venture," *China Online*, November 16, 1998.

54. Fred Hu "Should China Grow Chaebol?" *The Wall Street Journal*, December 18, 1997.

55. Organization for Economic Cooperation and Development, *State Owned Enterprise Reform in China*, Synthesis Note by the OECD Secretariat (Paris, July 20–21, 1998), 7.

56. "Study of China's System of State-Owned Enterprise Groups," *Daily Report China*, FBIS-CHI, March 5, 1999.

57. MBR/Battelle, 78.

58. "S&P Reduces Shanghai Baosteel to Junk-Bond Status," *China Online*, September 14, 1999.

59. MBR/Battelle, 64.

60. "PRC To Further Cut Steel Output Next Year," *Daily Report China*, FBIS-CHI, December 23, 1999.
61. "State Orders Merger, Bankruptcy for 12 Steel Firms," *Daily Report China*, FBIS-CHI, November 14, 1999.
62. Id.
63. Interviews with Chinese government officials by Department of Commerce officials, January 10–12 and February 28–March 1, 2000.
64. Wei-Wei Zhang, "Transforming China: Economic Reforms and Its Political Implications," (London, Macmillan Press, 2000), 141–147. See also MBR/Battelle, 11, 160.
65. Lu Zhian, OECD Note, *The Reform of the Chinese Steel Industry* (October 29, 1999). See also "China's AMCs Sign Largest Debt-Equity Deal Yet," *China Online*, November 12, 1999. See also "China Denies Debt-Equity Swaps Just 'Word Games'," *China Online*, February 7, 2000.
66. Steinfeld interview.
67. Id.
68. Id.
69. "China's Debt-Equity Program Has Yet to be Implemented," *China Online*, January 13, 2000. See also "China Denies Debt-Equity Swaps Just 'Word Games'," *China Online*, February 7, 2000.
70. World Bank, *Macroeconomic Update: China* (Washington D.C., January 31, 2000), 5.
71. "Chinese Coil Imports Remain Stable," *Metal Bulletin*, March 13, 2000.
72. Interviews with steel traders and steel consumers by Department of Commerce officials, January 10–12 and February 28–March 1, 2000.
73. "Tough Measures Target Steel Overcapacity," *South China Morning Post*, January 4, 2000. "China Bans New Steel Mills, Pushes Industry-Wide Closures," *China Online*, February 3, 2000.
74. Id.
75. Interviews with steel traders and steel consumers by Department of Commerce officials, January 10–12 and February 28–March 1, 2000.
76. To clarify the situation, Department of Commerce officials attempted to discuss licensing and quotas with the State Economic and Trade Commission and the State Development and Planning Commission, but they refused to answer any of our questions.
77. Interviews with Chinese government officials by Department of Commerce officials, January 10–12 and February 28–March 1, 2000.
78. "China Exports Show Clear Signs of Recovery," *The Nikkei Weekly*, December 15, 1999.
79. MBR/Battelle, 172–174.
80. WTO rules permit the rebate of indirect taxes, such as a VAT, in the case of an input used in production for export, provided that the rebate is not excessive, *i.e.*, does not exceed the tax imposed on the input when used for production of goods for domestic consumption.
81. "Import Substitution for China Steel Firms Up," *China Online*, March 15, 2000.
82. MBR/Battelle, 75 and 174.
83. International Iron and Steel Institute, *1999 World Crude Steel Production Data*, available from [http://www.worldsteel.org/trends\\_indicators/countries.html](http://www.worldsteel.org/trends_indicators/countries.html); Internet.
84. Total industrial production in 1998. During the first half of 1999, non-ferrous production accounted for 9.8 percent of total production. Subtracting the later value from the former yields as estimate of 4.1 percent. Ekspert Russian Metallurgy, Chapter 1.1, 7 and Chapter 3.1, 35.
85. Metal Bulletin Research Ltd. and InfoMine, *A Profile of the Steel Raw Materials Sector in the Ukraine* (London and Moscow, December 1999), 6. [Hereinafter Metal Bulletin Research Ltd., and Infomine-Ukraine]
86. *Ibid.*, 63.
87. Id.
88. *Ibid.*, 87.
89. Richard Levine, The Mining Journal Ltd., U.S. Geological Survey, *Ukraine* (Reston, VA, December 1999).
90. "Ukraine-Steel and Mining Sectors-an Overview," *International Market Insight Reports*, *Financial Times Asia Intelligence Wire*, February 11, 2000.
91. Metal Bulletin Research Ltd., and Infomine-Ukraine, 75.
92. *Ibid.*, 79.
93. Levine.
94. Id.
95. Technical Assistance to the CIS (TACIS) is an EU program designed to assist Russian steel makers move toward European standards, 1999. [Hereinafter referred to as TACIS]

96. Id.
97. Id. See also Stefan Korshak, "Dragged Down by the Ruble. Struggle to Save Dwindling Exports to Russia Could Cripple Ukrainian Economy," *The Post*, Kiev, Ukraine, October 2, 1998.
98. TACIS. In comparison with Russia, however, Ukraine managed to avoid a major bank crisis and succeeded in achieving certain other mitigating economic accomplishments.
99. Metal Bulletin Research Ltd., and Infomine-Ukraine, 77.
100. Ibid., 66.
101. Levine
102. Metal Bulletin Research Ltd., and Infomine-Ukraine, 65.
103. Ibid., 65.
104. Levine
105. Instituto Brasileiro de Siderurgia (IBS), *Anuario Estadístico: Brazil Steel Data Book* (Rio de Janeiro, May 1999), 7/7.
106. Metal Bulletin Research Ltd., and Infomine-Ukraine.
107. InfoMine, Market Analysis Research of the Ukraine Steel Industry (1999), 25, Figure 6. [Hereinafter Infomine-Ukraine] See also Stefan Korshak, "Red Hot Prospects?" *The Post*, Kiev Ukraine, February 3, 1998, 2. See also Metal Bulletin Research Ltd., and InfoMine-Ukraine.
108. Metal Bulletin Research Ltd., and Infomine-Ukraine, 66–67.
109. Mikhail Melnik, "Ukraine Close to Resolving Debt Problem," ITAR/TASS, FBIS, June 15 2000; Vitaly Sych, "Cabinet Offers Right to Manage Steel Plant," *The Post*, Kiev, Ukraine December 22, 1998. "The prices for crude materials and production costs are very high, while world prices for steel are very low."
110. Metals Russia representative Mohammed Zahoor, interview with Department of Commerce officials, February 2000, Moscow.
111. TACIS.
112. Stefan Korshak, "Red Hot Prospects?" *The Post*, Kiev Ukraine, February 3, 1998, 2.
113. Stefan Korshak, "Russian Investors Eye Donetsk Iron, Steel Works." *The Post*, Kiev, Ukraine, February 13, 1998.
114. Stefan Korshak, "Red Hot Prospects?"
115. Id.
116. Id.
117. Ruslan Karpov, "Rada Seeks More Control Over Sell-Offs." *The Post*, Kiev, Ukraine July, 22 1999.
118. Alex Berdnick, "SPF wants to eat its lunch its self," *The Post*, Kiev, Ukraine, September 9, 1999.
119. Id.
120. Additional factors that inhibit foreign investment is the government's ability to change conditions for foreign investment at the last minute. See Ana Nicholls, "Ukraine's Reforms Have Been Sporadic So Far," available from <http://www.Sabre.org>; Internet, accessed on October 27, 1999.
121. Nathan Hodge, "Government Throws Kryvorizhstal a Bone. Package of Tax Breaks, Debt Relief Cements Plant's Reputation as a Government Favorite," *The Post*, Kiev, Ukraine, January 28 1999. In early 1999, the government offered the steel giant assistance package that would forgive its massive indebtedness, the second time within a span of three years.
122. InfoMine-Ukraine, 17.
123. Vitaly Sych, "Cabinet Offers Right to Manage Steel Plant", *The Post*, Kiev, Ukraine, December 22, 1998. "The prices for crude materials and production costs are very high, while world prices for steel are very low."
124. InfoMine-Ukraine, 17.
125. Id.
126. "Ukraine-Steel and Mining Sectors-an Overview," *International Market Insight Reports, Financial Times Asia Intelligence Wire*, February 11, 2000.
127. Metal Bulletin Research Ltd. and InfoMine-Ukraine. It is too early to determine the overall impact of this new legislation on the steel industry because several of the benefits are tax breaks and, depending on the profitability of the companies, the impact of these benefits may not be significant in the short term.
128. Nathan Hodge, "Government Throws Kryvorizhstal a Bone. Package of Tax Breaks, Debt Relief Cements Plant's Reputation as a Government Favorite," *The Post*, Kiev, Ukraine, January 28 1999.
129. Hodge.
130. Bureau of the Census import data taken from the ITC Dataweb.
131. Id.

132. In terms of crude steel production, as of 1999. Data available from <http://www.worldsteel.org>; Internet.
133. Interview with Indian steel company official by Department of Commerce officials, February, 2000, New Delhi, India.
134. Ministry of Steel, available from <http://www.allindia.com/gov/ministry/steel/scenario.htm>; Internet. “Domestic production of Crude Steel has grown at an annual average compound rate of 6.1% and that of Finished Steel at the rate of 6.8% between 1948 and 1990.”
135. *Customized Market Analysis of the Indian Steel Industry* (authored by IndiaInfoline, Mumbai, India, February–May 2000), [Hereinafter CMA- India]
136. Government of India, Joint Plant Committee, *Performance Review—Iron & Steel, 1998–1999*, 3. [Hereinafter “JPC, *Performance Review*.”]
137. Interview with Indian steel company official by Department of Commerce officials, February, 2000, New Delhi, India.
138. JPC, *Performance Review*, 108.
139. Interview with Indian banking experts by Department of Commerce officials, March, 2000, Mumbai, India.
140. CMA–India.
141. JPC, *Performance Review*, 108.
142. CMA-India.
143. Id.
144. India’s federal budget deficit has continued to grow, reaching 5.6 percent of GDP in 1999/00, against its target of 4.0 percent. As a result, the government of India recently appointed a committee to review existing subsidies and recommend ways in which the government can reduce spending. “India Appoints Panel To Review Subsidies, Govt Spending,” *Wall Street Journal*, March 2, 2000.
145. CMA-India.
146. “Probity Sector Update-Steel,” *Indiainfoline*, September, 1999. Indiainfoline available from <http://www.indiainfoline.com/steel>; Internet.
147. CMA-India, Table VI: Price Movements. These prices represent averages, and do not account for product mix or product quality. See also “Sector Update,” *Indiainfoline*, January 2000
148. “Probity Sector Update Steel,” *Indiainfoline*, September, 1999.
149. Steel Watch, available from <http://www.indian-express.com/steel/statistics/19990125/table24.htm>; Internet. Selected Southeast Asian countries represented are: China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia, Phillipines, Singapore, Taiwan, and Thailand.
150. CMA-India.
151. JPC, *Performance Review*, 32.
152. Probity Sector Update Steel,” *Indiainfoline*, September, 1999.
153. Indiainfoline,. Also, Interview with Indian Development banking experts by Department of Commerce officials, March, 2000, Mumbai, India.
154. Interview with Indian Development banking experts by Department of Commerce officials, March, 2000, Mumbai, India.
155. “Sector Report,” Indiainfoline.
156. Id.
157. These products, which were previously subject to surcharges of between 2 and 3 percent, are: metallurgical coal/coke, ferro alloys, charge nickel, ferro nickel, and limestone. CMA-India.
158. Interviews with Indian banking experts by Department of Commerce officials, March, 2000, Mumbai, India.
159. Interview with Indian investment banking executive by Department of Commerce officials, March, 2000, Mumbai, India.
160. The financial institutions have instituted new, more stringent conditions for additional financing. In order to obtain additional money (for existing projects), companies must: (1) ensure that the company *group* will not take on any new projects until the existing steel projects are complete; (2) raise 51 percent of the funds through equity sales; and (3) return funds to the steel companies that had been shifted to other operations in the company group. Interview with Indian banking experts by Department of Commerce officials, March, 2000, Mumbai, India.
161. Interviews with Indian banking experts by Department of Commerce officials, March, 2000, Mumbai, India.
162. Id. See also “Fis agree to finance ongoing steel projects,” *The Hindustan Times*, November 20, 1998, New Delhi, India.
163. CMA-India.
164. The SDF was established in 1978, and operated through 1994. Under this program, a SDF levy was imposed

on all sales made by India's integrated producers; essentially, SAIL and TISCO were the major contributors. The proceeds from this levy were then remitted to the Joint Plant Committee (JPC), which then administered long-term loans from the fund at favorable rates. The steel producers' contributions to the fund were determined by their volume of production, and only those producers that contributed to the fund were eligible to receive monies from it. In late 1998, Essar Steel, Ispat Industries, and Lloyds Steel went to the Finance Ministry to request that the SDF cease giving "concessional rates" to SAIL and TISCO.

165. CMA-India.

166. Interview with Indian investment banking executive by Department of Commerce officials, March, 2000, Mumbai, India.

167. Interviews with Indian banking experts and Indian steel company officials by Department of Commerce officials, February, March, 2000, Mumbai, India.

168. Singdha Sengupta, "Essar, Ispat, Lloyds Cry Foul Over SDF Loans for Steel Majors," *New Standard*, Calcutta, November, 13, 1998.

169. CMA-India.

170. "Floor prices for imported hot-rolled spur debate in India." *Iron Age New Steel*, June 1999.

171. JPC, *Performance Review*, 52.

172. CMA-India.

173. See 2000 National Trade Estimates Report on Foreign Trade Barriers, Office of the United States Trade Representative, March 2000.

174. For example, tariffs on steel products in Brazil range from 9 to 19 percent. CMA-Brazil.

175. CMA-India.

176. Note: The programs discussed have been found to be countervailable by the Commerce Department, ITC, *Certain Cut-to-Length Carbon-Quality Steel Plate From India*, 64 FR 73131 (December 29, 1999). [Hereinafter CTL Plate Final]

177. Competition in Indian Industries, by N. Ravichandru.

178. On March 31, 2000, the Indian government announced that the SIL program will have been completely eliminated by March 31, 2001, in compliance with India's WTO obligations and pursuant to a WTO dispute settlement panel determination in response to a complaint (WT/DS90/1) filed by the United States. See Cable: New Delhi 2171 Routine.

179. Ministry of Commerce, *Handbook of Procedures, Volume I*, April 1, 1997 thru March 31, 2002 (incorporating amendments made up to 13th April, 1998).

180. The receipt and use of a SIL does not exempt a company from having to pay the import duty on the imported item.

181. CTL Plate Final.

182. According to the Government of India, the passbook program was discontinued on April 1, 1997. However, exporters can, conceivably, continue to use credits earned under the PBS program until their credits have been used up or until March 31, 2000. Id.

183. Id.

184. "Probity Sector Update Steel," *Indiainfoline*, September, 1999.

185. Id.

186. "Steel-makers form Indofer to Help Boost Usage," by Rajarshi Roy. *India Times*, December 25, 1998.

187. Id.

188. Represents the overall index of six infrastructural industries as reported by Steelworld, *Indian Steel News Digest*, May, 2000.

189. Id.

190. JPC, *Performance Review*, 11-12.

191. TISCO has spent approximately US\$1.9 billion on modernization projects in the last decade. Interview with Indian investment banking executive by Department of Commerce officials, March, 2000, Mumbai, India.

192. JPC, *Performance Review*, 78.

193. CMA-India, Tables 5 and 12.

194. Not only do the companies employ large numbers of people, they bear a large part of the country's infrastructure burden. Steel companies have traditionally built entire towns (roads, schools, hospitals, etc.) surrounding their plants, and to a large extent serve as a surrogate for social programs. Moreover, India does not have a social security system, or any other type of old age security. This places a large emphasis on longevity of employment, and makes it more difficult for companies to reduce their workforces without costly measures such as voluntary retirement.

195. The capacity of the new steel producers is very small relative to that of the large integrated mills. Even if the secondary producers were to export all of their capacity, selling absolutely nothing domestically, these companies would be exporting cumulatively less than 10 million MT.

196. Interviews with Indian steel company officials by Department of Commerce officials, February–March, 2000, New Delhi and Mumbai, India.

197. CMA-India, Table III: Total Exports.

198. JPC, *Performance Review*, 60.

## Chapter 7

1. The antidumping statute does not dictate a minimum period for the completion of antidumping investigations. The Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 also establishes no minimum time periods for completing investigations. Moreover, Article 6.14 of the Agreement states: “The procedures set out above are not intended to prevent the authorities of a Member from proceeding expeditiously with regard to initiating an investigation, reaching preliminary or final determinations, whether affirmative or negative, or from applying provisional or final measures in accordance with the relevant provision of this Agreement.”

2. Organization for Co-operation and Development, *The OECD Review of Regulatory Reform in Korea* (Paris, June 2000). Cited in Peter Montagnon, “OECD warns South Korea of ‘complacency’ over reforms,” *Financial Times*, June 2, 2000.

3. In developing new data programs, potential antitrust concerns must be addressed by avoiding, *inter alia*, the creation of short-term market forecasts.

4. The International Development Association (IDA) of the World Bank Group provides financing to the least developed countries. The term “IDA-only” excludes those countries that are “blend countries” which are eligible for both IDA and IBRD funds. For a list of current IDA-eligible borrowers, see <http://www.worldbank.org/ida/eligible.htm>; Internet.