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 201cases, 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 Wilhem 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 Knapschaefer, "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: Steel Producing Mills: Summary 1998, Series M331J(98)–13 of Current Industrial Reports*, March 2000. U.S. Census Bureau, *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.

Product Group	Net Increase in U.S. Imports 1997–1998 (metric tons)	Increase in U.S. Imports from Japan, Korea, and Russia 1997–1998 (metric tons)	Import Increase from Japan, Korea, and Russia Over Total U.S. Import increase
Total Steel Mill Products	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 Structurals	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 hotrolled 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 Hoeffer, "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 flatrolled 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, *Cicular 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 hotrolled 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, metalcutting 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 Tarasenko, 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.

 Clifford Gaddy and Barry Ickes, "Russia's Virtual Economy," *Foreign Affairs*, September-October 1998, 53–67.
 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; 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," *MoscowKommersant-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 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 Szamosszegi, 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.)

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 lso, Greg Mastel and Andrew Szamosszegi, 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_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 hotrolled 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; 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/; 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/realeases/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 the because the depreciation of the won would by itself increase the wondenominated 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 Defensa 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 Estatistico: Brazil Steel Databook* (Rio de Janiero, May, 1999), 1/7 and 1/8. [Hereinafter IBS-*Anuario Estatistico*]

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 Deservolvimento 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 Estatistico.

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.

"Economy-Brazil: High Interest Rates Hurt in Many Places," International Press Service, October 22, 1998.
 IBS-Anuario Estatistico.

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 Estatistico.

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 Countervaling 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 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. Organek, 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; 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: Banks Breaking Links With Ailing Customers," *Nihon Keizai Shimbun*, March 31, 2000; "Analysis: Banks Breaking Links With Ailing Customers," *Nihon Keizai Shimbun*, March 31, 2000; "Analysis: Banks Breaking Links With Ailing Customers," *Nihon Keizai Shimbun*, March 31, 2000; "Analysis: Banks Breaking Links With Ailing Customers," *Nihon Keizai Shimbun*, March 31, 2000; "Analysis: Banks Breaking Links With Ailing Customers," *Nihon Keizai Shimbun*, March 31, 2000; "Analysis: Banks Breaking Links With Ailing Customers," *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 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).

 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 IISL

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; 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. [Herinafter 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 Estatistico: Brazil Steel Data Book (Rio de Janiero, 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 Inidia 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, Phillippines, 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," Indianinfoline.

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. Ravichandrau.

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.