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## Next Move in Steel: Revocation or Retaliation?

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### Introduction

In May 2003, the World Trade Organization (WTO) dispute panel ruled that US steel safeguards imposed in March 2002 are illegal. The WTO Appellate Body is all but certain to confirm the panel's judgment, probably by December 2003. Then the Bush administration will face an important choice. It can keep the safeguards in place, pleasing steel producers and important constituencies in West Virginia, Pennsylvania, and Ohio. However, doing so would further anger steel users, who have probably lost more business and jobs as a direct consequence of the safeguards

than steel producers have gained.<sup>1</sup> Maintaining the safeguards would also send a signal to the world's trading nations that the United States is not prepared to endure the political cost of eliminating steel protection. Furthermore, the administration would run the risk that, in the middle of a presidential election season, foreign countries will exercise their rights under the WTO to retaliate.

Alternatively, the Bush administration can revoke the steel safeguards soon after the Appellate Body rules and before the presidential election cycle is full swing. This choice would eliminate an unfair tax on steel users. It would send a powerful signal to the world trading community, uplifting spirits after the failed Cancún ministerial meeting, and avert the political embarrassment of trade retaliation in the middle of a presidential election year. At the same time, revoking the steel safeguards could complicate the already difficult task of securing congressional approval of the Central American Free Trade Agreement (CAFTA) in mid-2004.

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<sup>1</sup> Later in this policy brief, we evaluate the balance between losses to steel users and gains to steel producers. By way of a preview, in Hufbauer and Goodrich (2003b), we estimated that 26,000 jobs would be lost in steel-consuming industries during the first 12 months after tariffs were imposed. Francois and Baughman (2001) estimated that steel tariffs would cause a net loss of 74,500 jobs. USITC (2003b, table 4-3) used a computable general equilibrium (CGE) model to estimate that safeguards had decreased the capital income (i.e., earnings) of steel users by \$601 million but had increased the capital income of steel producers by only \$240 million.

### Box 1. Timeline of steel safeguard saga

**June 2001:** President Bush asks the US International Trade Commission (USITC) to conduct a *global* safeguard investigation for 33 types of steel imports. The Senate Finance Committee duplicates this request.

**October 2001:** The USITC finds that imports are a substantial cause of serious injury to a segment of the US steel industry for 16 out of the 33 types of steel imports under investigation. In the finding, however, 5 types of steel imports are grouped into the single catchall category of flat-rolled steel, so only 12 product categories are eligible for safeguard remedies. For many of the steel products found to injure the US industry, imports from Canada and Mexico are found to contribute importantly to the injury.

**December 2001:** The six USITC commissioners provide remedy recommendations to President Bush. Two, Lynn Bragg and Dennis Devaney, recommend prohibitive tariffs (generally 30 to 40 percent). Three commissioners—Jennifer Hillman, Stephen Koplan, and Marcia Miller—recommend moderate tariffs (generally 10 to 20 percent). Commissioner Deanna Okun generally recommends moderate quotas. The commissioners suggest that imports from Canada and Mexico be excluded from the remedies.

**January 2002:** US Trade Representative Robert Zoellick writes a supplementary letter to the USITC asking several questions, most importantly whether the injury findings would be changed if steel imports from Canada and Mexico had been excluded from consideration. The commissioners respond that their injury findings would not have been affected.

**March 2002:** President Bush orders relief for 10 of the 12 categories of steel imports.<sup>1</sup> Imports from US partners in free trade agreements—Canada, Mexico, Israel, and Jordan—are excluded from coverage. Also excluded are imports from developing countries that individually supply small shares, less than 3 percent, of the US market. Finally, the Bush administration excludes a batch of highly specialized steel products on the grounds that they cannot be produced domestically in sufficient quantities. A USITC commissioner estimates that the safeguard tariffs cover 29 percent of US steel imports by volume (Hillman 2002). The safeguard duty rates are scheduled for reductions in March 2003 and 2004. Table 1 summarizes the original and reduced duty rates.

**June 2002:** The WTO establishes a panel to hear the case of eight complainants: the European Union, Japan, Korea, China, Switzerland, Norway, New Zealand, and Brazil.

<sup>1</sup> No remedies were granted for tool steel and stainless steel fittings and flanges.

**Summer 2002:** The Bush administration grants additional product exclusions in batches throughout the summer of 2002, in addition to the product exclusions granted in March 2002.<sup>2</sup> Altogether, 3.5 million short tons' worth of steel exclusions are granted, covering 727 products and constituting 25 percent of the tonnage covered by Bush's Section 201 remedy.<sup>3</sup> Half the product exclusions (measured by volume) cover unfinished steel imported by US steel firms for further processing. In the first year of steel safeguards, tariffs covered approximately 45 percent of steel imports within the safeguard categories, both by tonnage and by value.<sup>4</sup> Taking exclusions into account, safeguard tariffs cover 24 percent of total US steel imports by volume, 31 percent by value.<sup>5</sup>

**July 2002:** Trade promotion authority (TPA) receives final approval in the House and Senate, and the bill is signed into law on August 11. In the House, TPA passes by only three votes, 215 to 212, including the critical support of many members of the Congressional Steel Caucus.

**May 2003:** The WTO panel rules against the US safeguard remedies for all 10 types of steel imports. The nearly 1,000-page panel report and decision finds multiple faults in the USITC reasoning that led to the remedies' imposition.

**August 2003:** The United States appeals the panel's decision to the WTO Appellate Body. The Appellate Body is supposed to deliver its decision within 90 days of August 11. Most observers expect the Appellate Body to substantially uphold the panel's decision.

**September 2003:** The USITC issues two reports, totaling 890 pages, that evaluate the impact of the safeguard measures on steel producers and steel users. All sides claim that the USITC reports vindicate their preferred position.

**Early 2004:** If the United States does not revoke the safeguards after an adverse ruling from the Appellate Body, any prevailing complainant can take measures against US exports. There is, however, a lively legal dispute about whether prevailing complainants can act immediately by imposing "rebalancing" tariffs on US exports or whether they must seek authorization from an arbitration panel before imposing "retaliatory" tariffs.

<sup>2</sup> By March 31, 2003, the USTR had announced three lists of product exclusions; 513 temporary HTS subheadings identify products excluded from steel safeguard tariffs (USITC 2003a).

<sup>3</sup> These calculations assume a base year of 2001.

<sup>4</sup> Calculated from USITC (2003a, appendix C). Estimate does not include stainless steel rod, for which import data were withheld.

<sup>5</sup> Calculations are based on data from USITC (2003a, appendix C) and USITC (2003c).

In this policy brief, our fourth since steel safeguards first appeared on the horizon,<sup>2</sup> we review the safeguard saga to October 2003 in box 1, speculate on the possible extent of trade retaliation or tariff rebalancing in the highly likely event that the WTO Appellate Body affirms the decision of the WTO panel, and consider the impact of steel tariffs on US steel producers and steel users. Our speculation on retaliation or rebalancing presumes, of course, that the administration does not revoke the steel safeguards or offer alternative tariff concessions as compensation once the WTO Appellate Body has issued an unfavorable ruling.

### The WTO Panel Decision

Those who disagree with the outcome of a WTO decision often attack the WTO dispute settlement system without bothering to address the specific legal issues in the case. The decision on steel safeguards is no exception. However, even casual knowledge of WTO agreements and prior WTO cases would suffice to expose flaws in the USITC's original reasoning. Hence, analysts outside the US government and steel industry widely predicted the adverse WTO panel ruling against the United States.<sup>3</sup>

The panel report contains more than 5,000 footnotes, citing as precedent over 50 previous WTO cases. Boiled to its essence, the panel found the safeguards were inconsistent with WTO rules for five reasons. (For each imported steel product covered by the safeguard, table 2 summarizes the violations the WTO cites.)

**Increased imports.** Under WTO provisions, an increase in imports is a prerequisite to a finding of serious injury or a threat of serious injury. The US statistics failed to demonstrate that imports were increasing for five types of steel imports, including flat-rolled steel, which constitutes the bulk of domestic production. While imports of flat-rolled steel and many other steel products increased for three or four years through 1998, they generally declined from 1999 to 2001. Following the reasoning in previous WTO cases, the panel held that recent years should be given more weight when determining whether imports have increased, citing the text of the WTO Agreement on Safeguards, which states a country can apply a safeguard only when a product “*is being* imported into its territory in such increased quantities, absolute or relative to domestic

production, and under such conditions as to cause or threaten serious injury to the domestic industry that produces like or directly competitive products [emphasis added]” (GATT 1994b, article 2.1).

**Unforeseen developments.** The increased imports must be the outcome of developments trade negotiators could not foresee when they agreed to the tariff bindings in question. Negotiators are supposed to be smart enough to anticipate normal business cycle fluctuations and the prowess of foreign competitors.<sup>4</sup> Events beyond these common commercial occurrences are needed to justify safeguard remedies. The WTO panel ruled that the USITC failed to explain how the increase in steel imports was

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the result of unforeseen developments. The best the United States could do was point to the Asian financial crisis of 1997–98, but that event cannot plausibly explain unforeseen damage to the steel industry two years later.

**Causation.** Before a country resorts to safeguards, it must show not only that the domestic industry is suffering but also that an import surge was the primary cause of the injury. The panel ruled that the USITC failed to demonstrate that imports were the primary cause of serious injury to the US industry for nine of the ten steel products the remedies covered. Other factors contributed to problems in the US steel industry, and the WTO panel concluded that the USITC did not adequately disentangle these factors. We discuss some of them in the penultimate section.<sup>5</sup>

**Divergent findings.** Each of the commissioners made an independent decision as to whether tin mill and stainless steel wire should be grouped

<sup>2</sup> The preceding three are listed in the authors' biographies and the references.

<sup>3</sup> Hufbauer and Goodrich (2003a), for example, accurately anticipated the panel's reasoning.

<sup>4</sup> It is debatable whether the long-term structural decline of integrated steel producers was foreseeable. However, the USITC did not cite structural decline as a rationale for safeguard tariffs.

<sup>5</sup> See Hufbauer and Goodrich (2003a, 2002, 2001) for more detailed analyses of structural factors that have undermined certain sectors of the US steel industry.

**Table 1. Original and reduced safeguard duty rates** (percent)

<b>Product</b>	<b>First year</b>	<b>Second year</b>	<b>Third year</b>
Flat-rolled <sup>a</sup>	30	24	18
Tin mill	30	24	18
Hot rolled bar	30	24	18
C-F bar	30	24	18
Rebar	15	12	9
Welded tubular	15	12	9
Fittings / flanges	13	10	7
SS bar	15	12	9
SS wire	15	12	9
SS rod	8	7	6

a. The remedy for slab was a tariff-rate quota rather than an increase in duties.

Source: USITC (2003a).

**Table 2. WTO panel findings of violation by steel category**

<b>Product</b>	<b>Increased imports</b>	<b>Unforeseen developments</b>	<b>Causation</b>	<b>Divergent findings</b>	<b>Parallelism</b>
Flat-rolled	X	X	X		X
Tin mill	X	X	X	X	X
Hot rolled bar	X	X	X		X
C-F bar		X	X		X
Rebar		X	X		X
Welded tubular		X	X		X
Fittings / flanges		X	X		X
SS bar		X	X		X
SS wire	X	X	X	X	X
SS rod	X	X			X

Note: X indicates violation of a WTO condition for imposing safeguard tariffs.

Source: WTO (2003b).

with other steel products when making an injury determination. For example, two commissioners grouped tin mill with flat-rolled steel products in finding injury. However, of the four commissioners who considered tin mill as a separate product, three found no injury. Nevertheless, President Bush considered this split decision an affirmative injury finding.<sup>6</sup> The WTO panel said this was unreasonable since the votes of the six commissioners were “irreconcilable.”

**Parallelism.** WTO panels have ruled in previous cases that if imports from country X (typically a free trade agreement partner) are not subject to the safeguard remedy, they should not have been considered in the determination of injury. Accordingly, the panel ruled that the United States should have excluded steel imports from Canada and Mexico from the injury investigation if the remedies were not to be applied to these imports. The postdetermination communication between the USTR and the USITC on this issue was deemed inadequate; the USITC did not explicitly evaluate whether steel imports from Canada and Mexico were a more important cause of injury than steel imports from other countries.

While the WTO Appellate Body will almost certainly modify some of the findings in the panel report, it is extremely unlikely to exonerate the United States. Often the Appellate Body narrows the scope of a panel’s decision without affecting the bottom line. In this case, the panel found five independent violations of WTO rules and then exercised judicial restraint by putting aside additional legal issues—which could well have been decided against the United States. Hence, the chances for steel safeguards to withstand WTO review seem remote. This is particularly true for flat-rolled products, where the bulk of political pressure lies.

### WTO Procedures and Arbitration Precedents

The WTO has authorized retaliation against a noncompliant country only five times in its eight-year history.<sup>7</sup> Of these, three cases involved subsi-

dies rather than border restrictions (such as safeguard or antidumping duties). In most WTO cases, either the winning country is satisfied with a moral victory and does not seek retaliation even if the offending country fails to comply or the losing country abides by the WTO decision. With this sparse record, it is hazardous to predict exactly how much the prevailing parties will seek in penalties against US exports. Also, because of the novel circumstances of this case, it is uncertain when the prevailing complainants can take action—immediately after the Appellate Body rules against the United States or not until the arbitration panel determines the appropriate extent and timing of authorized retaliation.

The European Union has signaled its intent to impose “rebalancing tariffs” on the United States within five days of an adverse Appellate Body ruling. Since the European Union and other complainants seem determined, it is appropriate to consider the potential damage to US exports if the United States refuses to withdraw its safeguard remedies in this event. To further our inquiry, we first look at the rules governing WTO proceedings and four arbitration precedents. We then consider the events surrounding a previous safeguards case that did not result in authorized retaliation.

### WTO Procedures

Once the Appellate Body issues a decision, the judgment is final. The European Union claims the unilateral right to rebalance without further WTO authorization under Article 8 of the Safeguards Agreement. Under the agreement, countries that impose a safeguards tariff are normally permitted a three-year grace period before affected exporters can ask for relief—either through negotiated tariff concessions on other products or through their own rebalancing tariffs. The European Union claims that this grace period is forfeited once the Appellate Body rules that steel safeguards do not comply with the Safeguards Agreement.<sup>8</sup>

The United States might well take a different view.<sup>9</sup> The United States could assert that the rules of the Dispute Settlement Understanding (DSU) do not allow *retaliation* unless an arbitration panel authorizes the measures. The United States can

<sup>6</sup> Under US law, a 3-3 decision can be considered an affirmative injury finding. The legal issue is whether it is inappropriate for the commissioners to group a product in mutually exclusive ways when casting a vote. The same problem arose with stainless steel wire.

<sup>7</sup> These cases are, *Canada—Export Credit and Loan Guarantees for Regional Aircraft*, *United States—Tax Treatment for Foreign Sales Corporations*, *Brazil—Export Financing Program for Aircraft*, *European Communities—Regime for the Importation, Sale and Distribution of Bananas*, and *European Communities—Measures Concerning Meat and Meat Products (Hormones)*.

<sup>8</sup> The European Union took a similar stance in the case *United States—Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities*. In this case, rebalancing measures were imposed, and the United States requested consultations against them. However, before either the new case could be heard or a “reasonable period of time” had passed, the United States allowed the initial safeguards to expire, and the European Union lifted the rebalancing measures.

<sup>9</sup> The steel industry has endorsed this alternative.

cite Article 14 of the Safeguards Agreement, which states that the DSU rules govern all disputes over safeguards. To resolve the potential US-EU disagreement, the legal question for the Appellate Body is whether measures taken by prevailing complainants are “rebalancing” or “retaliation” measures. These are uncharted waters for the WTO, and no one is certain which side will prevail.<sup>10</sup>

The United States could sidestep this debate by offering compensation to the complainants in the form of lower tariffs (on a most-favored nation, or MFN, basis) for other imported goods. (The menu of goods and the extent of tariff reduction would be determined by negotiation.) But losing coun-

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tries in GATT and WTO disputes have seldom used the compensation option because it creates severe domestic political problems.<sup>11</sup> If the United States does not offer compensation and does not rescind the safeguards, the complainants will move forward with rebalancing or retaliation through steep tariffs on an appropriate amount of US exports—normally 100 percent for retaliation, perhaps a lesser level for rebalancing.

Assuming the safeguard tariffs are found to be illegal, the United States and the eight complainants will likely disagree as to what constitutes appropriate countermeasures. The European Union and other complainants will advocate rebalancing; the United States will likely insist that countermeasures be limited to authorized retaliation. If the European Union carries out its threat of rebalancing, the United States would have to initiate a WTO challenge against the height and breadth of rebalancing tariffs. In this case, the rebalancing measures—like the safeguards themselves—will be in force while

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<sup>10</sup> *Inside US Trade* (“Trade Experts Clash over Validity of EU Steel 201 Retaliation Threat,” October 3, 2003) details likely competing arguments and the uncertainty that the surrounds the character of countermeasures.

<sup>11</sup> The domestic import-competing industries that lose their tariff protection will bitterly ask, “Why should we pay for steel safeguards?” Moreover, since the tariff reductions are done on an MFN basis, inevitably third countries will benefit that were not parties to the complaint against the steel safeguards.

the case is heard.<sup>12</sup> The WTO’s lengthy decision process will then work against the United States, and it is unlikely that the case will be resolved before the safeguard measures expire. However, if only retaliatory measures are sought, then an arbitration panel would have to decide what retaliation is appropriate. Under this scenario, it could be several more months before the panel approves retaliatory measures.

Sooner or later, it seems likely that a WTO panel will evaluate the countermeasures imposed against steel safeguard tariffs. Although it applies in the US legal system, the doctrine of *stare decisis* does not explicitly apply in the WTO.<sup>13</sup> WTO panel determinations are not bound by past decisions in the dispute stage or the arbitration stage. In practice, however, panelists are mindful of precedent and often cite past decisions in their reports. The safeguard complainants would strengthen their legal footing by relying on past cases when selecting their remedies. Thus it is worth reviewing arbitration precedents from the DSU system, even though the steel tariffs might be entirely resolved as a rebalancing issue under the Safeguards Agreement.

### ***Bananas***

The Safeguards Agreement requires that rebalancing measures be “substantially equivalent” to the initial safeguard action. While no prior case has determined the meaning of “substantially equivalent” in the context of safeguards action, the concept resembles the WTO rule for retaliatory sanctions under the DSU: “The level of suspension of concessions or other obligations shall be equivalent to the level of nullification or impairment (of benefits to the exporter due to the WTO inconsistent measure).” (GATT 1994a, article 22.4) This sentence was first tested in a 1999 case between the European Union and the United States (joined by Ecuador) over the European Union’s restrictions on banana imports. The arbitrators established the following methodology for determining the “equivalent level” of retaliation:

7.1 To estimate the level of nullification or impairment, the same basis needs to be used for measuring the level of suspension of concessions. Since the latter is the gross value of US imports from the European Communities, the comparable basis for estimating nullification and impairment

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<sup>12</sup> See Maruyama and Eckert (2003) for a discussion of WTO procedures in the event that a safeguard is found not to adhere to the Safeguards Agreement.

<sup>13</sup> *Stare decisis* is the doctrine that, once a court lays down a principle of law, it will adhere to that principle and apply it to future cases when the facts are substantially the same.

in our view is the impact on the value of relevant EC imports from the United States (rather than US firms' costs and profits, as used in the US submission). More specifically, we compare the value of relevant EC imports from the United States under the present banana import regime (the actual situation) with their value under a WTO-consistent regime (a "counterfactual" situation). (WTO 1999, paragraph 7.1)

### **Beef Hormones**

The notion of a counterfactual was also used in a simultaneous 1999 case that the United States and Canada brought against the European Union's prohibition of beef imports from cattle treated with growth hormones. To determine the appropriate level of US and Canadian retaliation, the arbitration panel asked the simple question: What would be the value of US and Canadian exports of hormone-treated beef to the European Union if the European Union had complied with the Appellate Body's decision before the reasonable period expired? The answer was made somewhat easier because the European Union had an import quota on beef. The panel assumed that the United States and Canada would fill their quotas and then deducted the current value of hormone-free beef exports to calculate the value of hormone-treated beef exports that would occur if the European Union had rescinded the ban.

### **Foreign Sales Corporation**

In 1999, the European Union launched a complaint against US tax preferences for exporting firms (the foreign sales corporation or FSC legislation). The complaint characterized the FSC regime as a prohibited export subsidy, and the European Union prevailed in the WTO (Hufbauer 2002). In response, the United States replaced the FSC regime with the Extraterritorial Income Exclusion (ETI) Act. In January 2002, the Appellate Body ruled that the ETI, like its predecessor, conferred a prohibited export subsidy.

In the arbitration proceeding that followed, the European Union argued that it should be permitted to retaliate up to the full value of the US tax subsidy, estimated at \$4 billion annually, *without* having to prove that EU exporters were harmed to the tune of \$4 billion under the WTO's Subsidies and Countervailing Measures Agreement. In other words, even though the FSC/ETI boost to US exports might be small and in any event was distributed across all destinations for US exports, the European Union, as the sole complainant, sought authorization to retaliate against \$4 billion worth of US exports, the total value of the illegal subsidy.

The arbitration panel agreed with the European Union's claim. The panel determined that WTO rules do not tie the appropriate level of countermeasures to the adverse trade effect of the subsidy on the complainant. This represented a departure from the reasoning in the beef hormones case, which pertained not to a subsidy but to a border barrier. The panel in the FSC case seems to have concluded that prohibited subsidies represent a particularly repugnant violation of WTO norms.<sup>14</sup> Since the European Union was the sole complainant, the arbitration panel gave it the right to retaliate up to the full value of the US subsidy. The panel took an ambiguous po-

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sition on the appropriate level of countermeasures for the hypothetical case of multiple complainants. On one hand, the panel said that it *might* be inappropriate for the European Union to retaliate against \$4 billion of US exports annually if there had been multiple complainants, but the panel went on to say that its ruling did not preclude other countries from bringing a WTO challenge against ETI law.

The European Union and other complainants might attempt to apply the FSC/ETI arbitration panel reasoning in the steel safeguard case. In a worst-case scenario for the United States, the arbitration panel would permit *each* of the eight complainants to retaliate up to the *full* value of US worldwide steel imports lost due to, or covered by, the safeguard remedies. However, we are skeptical that an arbitration panel would reach this result, both because safeguards and subsidies are addressed in different WTO agreements and because

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<sup>14</sup> The arbitration panel in Canadian Aircraft II (WTO 2003a) summarized the US-FSC decision and commented that the arbitrator in US-FSC concluded: "Not only is a Member entitled to take countermeasures that are tailored to offset the original wrongful act and the upset of the balancing of rights and obligations which that wrongful act entails, but in assessing the 'appropriateness' of such countermeasures—in light of the gravity of the breach—a margin of appreciation is to be granted, due to the severity of that breach."

the FSC/ETI arbitration decision implied that prohibited export subsidies pose a special offense to the WTO system. Further, we doubt that the European Union or other countries claiming rebalancing rights would impose tariffs on a larger value of US exports than the amount of their own steel exports covered by safeguard tariffs. Rebalancing tariffs in excess of that benchmark would appear to be a declaration of trade war.

### **Canadian Aircraft II**

Canada and Brazil have each accused the other of subsidizing the production of civil aircraft. In the most recent phase of this long-running dispute, the WTO Appellate Body found that Canada was providing a prohibited export subsidy. In May 2002, after Canada made it clear that it did not intend to comply, Brazil requested authorization to retaliate. The arbitration panel authorized Brazilian retaliation against Canadian exports worth up to 120 percent of the value of Canada's subsidy. By authorizing retaliation in excess of 100 percent of the subsidy, the arbitration panel added a punitive element to the countermeasures. In justification, the panel liberally cited the arbitration decision in the FSC case and came to conclusions that would not bode well for the United States if applied to the steel safeguard case.<sup>15</sup> Again, however, we doubt that the reasoning in a prohibited subsidies case would carry over to a safeguards case.

### **Wheat Gluten**

In 1998, after a USITC investigation, the United States placed safeguard quotas on wheat gluten imports from the European Union, Australia, and other countries, restricting imports to 58,000 metric tons. The Appellate Body ruling, issued in December 2000, dealt with issues similar to those posed in the current steel dispute. In the wheat gluten case, the Appellate Body ruled that the USITC investigation failed to demonstrate a causal link between the increase in wheat gluten imports and harm to the domestic industry. The ruling further found that the United States inappropriately included Cana-

dian imports in the USITC's investigation but failed to subject them to the resulting safeguard measures (WTO 2000).

Five days after the Dispute Settlement Body adopted the Appellate Body's findings, the European Union, claiming the right to rebalance—not retaliatory countermeasures—imposed a tariff rate quota of 5 euros per metric ton on the first 2.7 million metric tons of corn gluten imported from the United States. Simultaneously, the European Union expressed its intent to pursue WTO-sanctioned retaliatory measures if the safeguard was not lifted. In response to the rebalancing tariff, the United States requested consultations at the WTO, alleging that the tariff was inconsistent with the Safeguards Agreement. On June 1, 2001, the United States allowed its wheat gluten safeguard to expire, and the European Union lifted its rebalancing measure against corn gluten, ending both cases.

### **Countermeasures Against US Exports**

In the case of steel safeguards, the European Union has already drawn up a list of US exports worth \$2.2 billion annually for potential countermeasures. This list includes Harley Davidson motorcycles, textile products from the southeast

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*Although the USITC did a variety of  
“sensitivity checks,” it should have done a  
“reality check.”*

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United States, and citrus products from Florida. In short, the list is designed to maximize the political pain for Republicans in 2004.

The European Union arrived at the \$2.2 billion figure by adding up the value of EU steel exports covered by the US safeguards rather than the value of EU steel exports lost on account of the US safeguards. The WTO has never used such a rationale in allowing retaliation in a border restriction case, but neither has it explicitly repudiated such a rationale. The European Union will no doubt argue that this more expansive method of calculating damage is necessary to restore the balance of concessions, and it will be up to the United States to prove the European Union wrong. Considering that there has never been an arbitration award for a safeguards case, nothing can be taken for granted.

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<sup>15</sup> Consider this statement from the Canadian Aircraft II case, WTO (2003a): “In other words, we consider that countermeasures are there to contribute to the end of a breach. We also believe that the ‘appropriate’ level of countermeasures should reflect the specific purpose of countermeasures. Keeping this in mind, we are of the view that Canada’s statement that, for the moment, it does not intend to withdraw the subsidy at issue suggests that in order to induce compliance in this case a higher level of countermeasures would be necessary and appropriate.”



**Table 3. Scope for retaliation under two standards** (millions of dollars)

<b>Complainant</b>	<b>Exports lost</b>	<b>Exports covered</b>
European Union	561	1,900
Japan	119	418
Korea	151	507
China	21	110
Switzerland	4	17
Norway	2	7
New Zealand	11	33
Brazil	30	107
<b>Total</b>	900	3,100

A commonplace econometric question could be asked and answered about steel safeguards: What would be the value of a complainant's steel exports to the United States if the safeguard were rescinded? However, no WTO arbitration panel has yet undertaken an independent econometric analysis. Given this precedent, rather than venture into econometric analysis, we use algebra to get a handle on the level of retaliation that the WTO might authorize. We present these calculations in appendix A. The calculations are designed to show both the value of steel *exports lost* on account of safeguards and the value of *exports covered* by the safeguards. Depending on the favored precedent, countermeasures could be equivalent to exports lost or exports covered.

Table 3 shows the results under both the exports lost and the exports covered standards. Under the exports lost standard, \$0.9 billion of US exports would be exposed to retaliation, with over 60 percent of the retaliation coming from the European Union. Under the exports covered standard, \$3.1 billion of US exports would be exposed to retaliation, with the European Union accounting for \$1.9 billion of the retaliation. Interestingly, this estimate of \$1.9 billion in EU retaliation is fairly close to the \$2.2 billion hit list that the European Union compiled over a year ago, which suggests that our rough methodology accurately captures EU sentiments at that time, even though the European Union used a less sophisticated method for determining harm.

Neither of our standards reflects the punitive element that colored the FSC/ETI and Canadian Aircraft II arbitration awards. If the arbitration panel in the steel safeguards case can be persuaded—by the

European Union or another complainant—that the reasoning of those two prohibited subsidies cases should apply to a safeguards case, then the arbitration award could exceed \$3.1 billion.

### **USITC Reports**

On September 19, 2003, the USITC released its analysis of the steel safeguards. Two key questions that should be asked are 1) what have been the welfare effects of the safeguards? and 2) what effects have the safeguards had on consolidation in the steel industry? One could also ask about the state of the steel industry and what would happen if the safeguards were discontinued.

### **Welfare Effects of the Safeguards**

The most useful part of the USITC reports is a CGE simulation of the steel safeguards. Although the USITC's CGE model can be justly criticized, it at least attempts to avoid the *post hoc ergo propter hoc* fallacy. Unfortunately, the USITC did not conduct a similar analysis when it made its remedy recommendations to President Bush in December 2001. This is a major problem with US safeguards law.

Under the baseline assumptions of the USITC's model, the net effect of the steel safeguards is to reduce US welfare by \$42 million annually. This figure is extremely small relative to the US GDP of almost \$11 trillion.

However, the USITC's calculation of net effect obscures the components that go into it. Most of the benefits of the steel safeguards go not to steelworkers, nor even to steel producers, but to the US government in the form of increased tariff revenue

(\$650 million). Although the USITC did a variety of “sensitivity checks,” it should have done a “reality check.”<sup>16</sup> In the 12 months following the safeguards, the US Customs Service collected only \$581 million in duties from steel imports, which represents an increase of only \$294 million (not \$650 million) over the 12 months before the safeguard. Furthermore, the definition of steel used for this calculation includes products that are not even covered under the safeguard (USITC 2003b).

The discrepancy in tariff revenue suggests that the USITC’s model understates the volume of steel imports that the tariffs have kept out of the United States. If so, then the safeguards have affected the domestic steel market to a greater extent than the USITC’s model indicates and the true economywide

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***The issue is not whether the steel safeguards are catastrophic for the US economy; the conclusion is that the safeguards are unambiguously a drag on the US economy.***

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effects are understated. For example, the USITC’s model concluded that the average price of steel in the United States increased by 0.94 percent as a result of the safeguard. In Hufbauer and Goodrich (2003a), we estimated that the safeguards increased the average domestic price of steel by 1.3 to 5.1 percent with a central estimate of 3.3 percent. Our central estimate is consistent with the conclusion that the USITC’s model understates the true economywide effects of the steel safeguard. We think our figure is preferable because it was *estimated* under relatively limited assumptions rather than being *derived* algebraically in the style of CGE models, which require a great many assumptions.

We turn now to the CGE model’s results for the US manufacturing sector, which are probably understated since the price effect is understated. The second component (after the increased tariff revenue) of the USITC’s welfare change calculation is the change in labor income. The USITC reports a loss of \$386 million, which implies that even if there has been an increase in employment in the steel-producing and upstream industries, the *net* effect of the safeguards on the US labor market was nega-

tive. This loss of \$386 million is only 0.2 percent of labor income earned by durable goods production workers from April 2002 to March 2003. We do not know whether the income loss results from a reduction in average hours worked per employee or from a reduction in employed workers (perhaps partially offset by an increase in hours worked by retained employees). However, if the loss were entirely due to a reduction in employment in the durable goods sector, the effect of the safeguard would have been to displace over 12,000 production workers from their jobs.<sup>17</sup>

This figure should be considered conservative (since the USITC probably understated the effect of the safeguard on domestic steel prices) but is roughly consistent with our previous estimate of 26,000 jobs lost annually.<sup>18</sup> Assuming our central estimate of the effect of the safeguards on steel prices (3.3 percent increase) rather than the USITC’s estimate (0.94 percent), then the employment loss might be 43,000 annually, although a good portion of the reduction in labor income is probably due to cutbacks in hours rather than cutbacks in employment. Either way, the safeguards are bad for downstream wage earners.

The final component of the net welfare change calculation is return on capital (i.e., corporate earnings), where losses in the downstream industries overwhelm the combined gains in the steel-producing and upstream industries by almost a 2 to 1 margin. The net earnings loss (\$294 million) is probably understated, but it is still a loss. None of these welfare figures are large relative to the total amount of tariff revenue collected, nor to the total employment in durable goods, nor to the total profits earned by business. However, the issue is not whether the steel safeguards are catastrophic for the US economy; the conclusion is that the safeguards are *unambiguously* a drag on the US economy.

### **Consolidation in the US Steel Industry**

Proponents of the steel safeguards are quick to point out that consolidation has occurred in the US steel industry *since* President Bush imposed the steel safeguards. It is true that a round of consolidation followed high-profile bankruptcies. International Steel Group (ISG) purchased the assets of bankrupt firms LTV Steel, Acme Metals, and Bethlehem Steel; US Steel purchased National Steel’s assets;

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<sup>16</sup> The sensitivity checks revealed that moderate changes in some of the model’s parameters resulted in a relatively large change in the final results. This finding will come as no surprise to anyone who has experience with CGE models.

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<sup>17</sup> The data on production workers, their hourly earnings, and their weekly hours were obtained from the Bureau of Labor Statistics (2003a).

<sup>18</sup> See Hufbauer and Goodrich (2003a). Francois and Baughman (2001) estimate using a CGE model that steel tariffs would cause a net loss of 74,500 jobs.

and the mini-mill firm Nucor acquired the assets of Trico Steel and Birmingham Steel.

However, virtually everyone agrees that more consolidation is needed. More important, proponents of tariffs never adequately explain *how* the safeguards hastened the pace of consolidation. Instead, they simply assert a relationship between the safeguards and consolidation. This statement by Wilbur Ross Jr., chief executive officer of ISG, in testimony to the USITC is typical:

The domestic industry generally and ISG in particular have used the temporary relief to adjust positively to import competition through consolidation of production facilities, negotiation of ground-breaking collective bargaining agreements that have brought about significant improvements in productivity, new capital investments, and other measures. None of this would have been possible in the absence of temporary relief. However, our work is not yet finished. ISG needs to continue to invest in its production facilities to make them more cost-efficient. ISG needs the remaining time of temporary relief to complete its work so that we can compete with imports once relief is terminated (Ross 2003).

We find it hard to believe that someone who has made as many billions as Ross fails to see the logical problems inherent in his statement. First, consolidation in the steel industry only occurs when a steel-producing firm is performing very badly and sells itself to a stronger firm. All of the consolidation that occurred in the steel industry since 1997 happened in the context of bankruptcy. In this sense, bankruptcy is a prerequisite to consolidation. By increasing steel prices moderately, the Bush administration may have propped up weak steel firms for a longer period, delaying consolidation.

Second, proponents of tariffs often say the increase in steel prices due to the safeguards was necessary to finance capital investment. But capital investment can be the opposite of consolidation if old capacity is not permanently taken off line. In a previous policy brief, we estimated that the safeguards were responsible for only 39 percent of the increase in domestic steel prices, with the residual increase being mainly attributable to the reduction in domestic steelmaking capacity (Hufbauer and Goodrich 2003a). The increase in domestic steel prices due to the safeguards—whether 5.1 percent, 3.3 percent, or 0.9 percent—was certainly not nearly enough to make or break a major investment. Of the major players in the recent wave of consolidation, Ross entered the steel industry with billions of dollars from previous (nonsteel) business ventures,

Nucor can issue unsecured bonds, and US Steel has sufficient access to credit, even though its senior unsecured debt is not considered investment grade (USITC 2003a, volume I, table Overview III-2). If the increase in steel prices augmented the cash flow of stronger firms, it would have a corresponding effect on the value of the assets of weaker firms. In the course of consolidation, the stronger firms would therefore have to pay a higher price to the bankruptcy creditors of weaker firms. All in all, the main result of safeguard tariffs in the saga of steel industry consolidation was to put more money in the pockets of bankruptcy creditors—bank lenders and bondholders.

Third, proponents talk about the certainty in steel prices that the safeguard supposedly engendered. However, the safeguards did not make steel prices more certain; depending on market conditions, steel prices can still go up or down.<sup>19</sup> The only thing that is certain is that steel prices are somewhat higher than they would have been in the absence of safeguards. Also, steel producers knew

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***Proponents of tariffs never adequately explain how the safeguards hastened the pace of consolidation. Instead, they simply assert a relationship.***

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full well that the tariffs would last at most three years, quite possibly less. Few in the steel industry are foolish enough to make a billion-dollar investment decision with a three-year time horizon. This is especially true since the safeguard tariffs covered only 31 percent by value of US steel imports.

Finally, steel producers such as ISG insist that the safeguards must be maintained if the gains from consolidation are to be realized. But there is no scenario at this point for the major firms to “unconsolidate” back into their component parts. Future consolidation will entail the acquisition of small steel producers, since most of the teetering major producers have already been gobbled up. The only significant prospect for major consolidation is AK Steel: its stock price has plummeted from almost \$15 to almost \$2 per share since March 2003, while stock prices in the rest of the industry have

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<sup>19</sup> Given the reduction in steelmaking capacity and the moderate upturn in the US economy, it was fairly certain that steel prices would rise after the safeguards were imposed.

rebounded. But AK Steel has historically been profitable, does not appear to be on the verge of bankruptcy, and may or may not be open to a merger. In any event, AK Steel does not support the safeguards, so there is no point in maintaining them for AK Steel's sake.

The quotation from Ross underscores the real explanation as to why the consolidation occurred in 2002/2003—the new labor agreement with the United Steelworkers of America (USWA), the industry's largest union. This labor agreement has been described as revolutionary because it permits workforce reductions of up to 40 percent, reduces job classifications from 30 to 5, and introduces profit sharing, among other provisions. This labor agreement allows ISG to operate the facilities formerly owned by LTV, Bethlehem, and Acme Metals

more efficiently and forced US Steel to follow suit when it purchased National Steel. In fact, AK Steel actually made a higher bid for National Steel's assets but was unable to reach a labor agreement with the USWA, enabling US Steel to complete the purchase. The chief executive and chief financial officer of AK Steel were recently pushed out because they were unable to reach a similar agreement with the USWA that would make their products competitive with the other integrated producers. In short, the labor agreement may not be the only thing, but it is critical.

More consolidation is needed. Despite the highly visible acquisitions of LTV, Bethlehem, and National Steel, the steel industry's track record on consolidation since the safeguards is underwhelming. Of the respondents that actually answered the USITC's

**Table 4. Steel industry before and after safeguards**

Statistic	March 2002	July/August 2003 <sup>a</sup>	Change
Imports by value (millions of dollars) <sup>b</sup>	1,017	952	-6.4%
Imports for consumption (thousands of short tons) <sup>b</sup>	2,778	1,864	-32.9%
Domestic shipments (thousands of short tons) <sup>b</sup>	7,874	8,701	+10.5%
Dow Jones steel share price index	87	64	-26.4%
After-tax profit as share of sales (percent) <sup>b</sup>	-3.8	-2.3	+1.5
Steel producer price index	97	105	+7.6%
Capacity (base year 1997)	109	110	+0.5%
Utilization rate (percent)	78	73	-6.6%
Average hourly earnings (dollars)	22	23	+6.0%
Steel producer employment (thousands)	107	101	-5.2%
Steel user employment (thousands)	4,016	3,766	-6.2%
Bankruptcies since 1997 (firms)	33	40	+7

Sources: USITC (2003c), Yahoo (2003), US Census Bureau (2003a, 2003b), BLS (2003a, 2003b), Federal Reserve Board (2003), and USWA (2003).

Note: Imports, producer employment, and producer price index data use NAICS 3311 (iron and steel and ferroalloys) definition of steel industry; capacity and utilization use NAICS 3311 & 3312 (steel product manufacturing) definition of steel industry; steel users are defined as industries listed in USITC (2003a, table 1-2).

a. July/August 2003 data are for the latest available month.

b. Profits, imports, and shipments data are for first quarter 2002 and second quarter 2003. Imports and shipments are expressed as a monthly average.

survey on adjustment efforts (even though it was anonymous), only 16 percent reported capacity reductions; only 23 percent reported mergers and consolidations; only 39 percent reported changes in pension liabilities, health care, and union contracts; and only 64 percent reported employee reductions. By contrast, 80 percent reported increased investment, although it is not clear from the survey whether these investments are intended to add new capacity or replace old capacity (USITC 2003a, vol. I, FLAT IV-6).

### **Current Condition of the Steel Industry**

One of the USITC reports discusses the state of the US steel industry at length. There are three general problems with the USITC's methodology. First, the USITC recognizes that it is not legitimate to conclude that what has happened *since* the safeguards went into effect happened *because* of the safeguards, but aside from applying the CGE model, the USITC spends little effort attempting to overcome this *post hoc ergo propter hoc* fallacy. Second, the USITC relies heavily on survey data, despite warnings from social scientists that only those respondents with an axe to grind bother responding to voluntary surveys, and those respondents frequently manipulate their answers.<sup>20</sup> Third, the USITC restricts itself to analyzing data through March 2003. It avoids answering hard questions: How are steel producers and steel-using industries currently doing? What are their future prospects? And, given the answers, should the safeguards be continued?

For what they are worth, table 4 provides "before and after" statistics. Since the introduction of safeguards, US steel imports from countries subject to the tariffs have declined, although these declines were partially offset by increased imports from exempted countries, led by North American Free Trade Agreement partners Canada and Mexico. Exclusions were concentrated on raw steel purchased by the domestic steel industry itself (e.g., slab), while imports for consumption by other industries dropped by about 33 percent. Owing to weak conditions in the US manufacturing sector, domestic demand for steel in the past year declined. Nevertheless, the safeguards kept steel prices up even as the domestic industry increased production.

Seven steel production or processing companies have declared bankruptcy since safeguard tariffs

went into effect on March 20, 2002.<sup>21</sup> However, the number of workers employed by these seven newly bankrupted companies is small (8,500) relative to the number of workers employed by companies that went bankrupt between 1999 and March 2002 (68,500).

Steel users have shed jobs at a slightly faster rate in the past year than steel producers. Steel industry wages remain in excess of the average for durable manufacturing industries and rose 6 percent between March 2002 and July 2003. Despite the safeguards, the steel industry is still unable to turn a profit.<sup>22</sup> In the second quarter of 2003, the industry's after-tax profit as a share of sales was

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### ***Steel users have shed jobs at a slightly faster rate in the past year than steel producers.***

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-2.3 percent. This represents a small improvement over presafeguard losses. However, since the industry remains unprofitable even with the safeguards in place, more consolidation is necessary.

Multibillion-dollar legacy costs of retiree pension and health care continue to loom over the industry, keeping the average cost of production high.<sup>23</sup> These legacy costs, as their name implies, reflect past events in the industry, and safeguards do not greatly affect them. The USWA has made the preservation of current wage levels and benefit programs a priority in future collective bargaining agreements. The union is also committed to maintaining steelworker employment, although it has recently shown some willingness not to press too hard for this demand, which is mutually exclusive with other priorities.

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<sup>21</sup> Two companies (National Steel and Calmut Steel) declared bankruptcy between the time the safeguards were announced (March 5, 2002) and the time they went into effect (March 20, 2002), but they were well on their way to bankruptcy beforehand. The seven postsafeguard bankruptcies are (in order of filing): Birmingham Steel, Cold Metal Products, Bayou Steel, Kentucky Electric Steel, EvTac Mining, Weirton Steel, and WCI Steel. See USWA (2003) for more information.

<sup>22</sup> The Dow Jones steel share price index is down by about 26 percent since March 2002, mainly because of the drastic fall in the share price of AK Steel Holdings.

<sup>23</sup> According to USITC (2003a, table Overview III-4), 12 steel producers' pension plans have been taken over by the Pension Benefit Guaranty Corporation (PBG) since 2001; these plans were underfunded by a total of \$9 billion. USITC (2003a) calculates that steel industry pension plans and other postemployment benefits plans (OPEBs) are underfunded by \$8 billion and \$12 billion respectively in fiscal 2002.

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<sup>20</sup> Evidence of manipulation of the USITC survey results has already been unearthed. *Inside US Trade* ("ITC Reprimands D.C. Lawyer for Issuing Tip Sheet to Steel User," October 3, 2003) reported that the USITC has publicly reprimanded a lawyer for advising clients to exaggerate their companies' injuries and job losses in response to the USITC questionnaire.

**Conclusion: Statesmanship in Steel?**

President Bush may soon have an opportunity for trade statesmanship, which will be sorely needed as the world digests the failed Cancun ministerial. If the WTO Appellate Body rules against the United States, President Bush should quickly revoke the safeguard duties. This action can be taken by executive order and does not require legislation.

The political argument *against* revocation is fairly simple. In June 2001, President Bush requested the USITC steel safeguards investigation with one eye toward congressional passage of TPA. In a cliffhanger vote in the House of Representatives in December 2001 (215-214), some 39 of the 45 House Republican members of the Congressional Steel Caucus voted for TPA (Hufbauer and Goodrich 2002). Several of these members were not known for their support of trade legislation, and some of them reside in closely contested districts. It can be argued that President Bush “owes them” to keep the safeguard tariffs in place through March 2005—both to satisfy a political debt and to ensure their support for free trade agreements that might be concluded in the next two years.<sup>24</sup>

Other political realities argue against continuing the safeguards. In the first place, some steel industry lobbyists, drawing on the logic of *post hoc ergo propter hoc*, claim that safeguards have “worked.”<sup>25</sup> Knowledgeable Capitol Hill observers report that some congressional Republicans from steel districts are prepared to declare victory and call it a day if the WTO Appellate Body rules against the United States. At that juncture, not only will congressmen representing steel users clamor for relief, but also congressmen representing districts targeted by EU

(and other) rebalancing/retaliation measures will demand that the safeguards be lifted.

Turning from politics to economics, an argument can be made that the steel industry has not returned to full health. At the same time, a more compelling argument can be made that the steel safeguards have done more harm to the steel-using industries than good for steel producers. Tipping the balance in the economic debate between domestic steel producers and steel users is the international dimension. Steel safeguard tariffs have been widely criticized abroad for disregarding international norms. If they are ruled illegal, economic statesmanship calls for their removal.

If President Bush and his advisers believe that the steel industry needs further assistance, they should spare domestic steel users and foreign steel suppliers and instead ask Congress to target relief on steelworkers, both active and retired. Safeguard duties boost the profits of well-run steel firms, and they ensure that creditors get paid more cents on the dollar when poorly run firms go bankrupt. But safeguard duties do little for steelworkers. Retired workers once employed by bankrupt firms have now lost hundreds of millions of dollars in pension and health benefits. Recently laid off workers are eligible for Trade Adjustment Assistance (TAA). While the TAA program was improved in 2002 in the context of TPA, it is far from generous, and its terms should be further liberalized in the direction of “wage insurance.”<sup>26</sup>

Steel policy choices made in the next few months could set the tone for trade debates nationally and internationally. The United States can show that it values the world trading system and respects WTO legal decisions, or it can defy an adverse WTO ruling, endure trade retaliation, and further sour the climate for Doha negotiations.

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<sup>24</sup> FTA negotiations with Australia and Central America (CAFTA) are well advanced, and negotiations with Bahrain, Morocco, and South Africa have been initiated. The Free Trade Area of the Americas (FTAA) conceivably will be concluded in 2005.

<sup>25</sup> Steel lobbyist Terrence D. Straub is quoted as saying, “If I were White House economists, I’d have to sit back, read this and be honest—the tariffs have worked” (“Tariffs Help Lift U.S. Steel Industry, Trade Panel Reports,” *Washington Post*, September 21, 2003, A12).

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<sup>26</sup> Wage insurance is the concept of public compensation to dislocated workers for part of the difference between pay on the previous job and lower pay on the new job. See Kletzer and Litan (2001).

## Appendix A. Determining the Effect of Safeguards

In the following four equations, we calculate a response factor to estimate the effect on imports of a 1 percent rise in the tariff rate and use this number to find the amount of exports lost by each of the complainant countries, as well as the total amount of exports covered by the tariffs for each complainant. To do this, we exploit the fact that the safeguard tariffs were set in March 2002 and then phased down in March 2003. The following equations are explained below.

$$(1) F_p = \left[ \frac{1}{\%T_p^{2002} - \%T_p^{2003}} \sum_{c=1}^8 \sum_{m=April}^{July} (I_{cpm}^{2003} - I_{cpm}^{2002}) \right] / \sum_{c=1}^8 \sum_{m=April}^{July} I_{cpm}^{2002}$$

$$(2) F = \sum_{p=1}^{10} \left( F_p \sum_{c=1}^8 \sum_{m=April}^{July} I_{cpm}^{2003} / \sum_{p=1}^{10} \sum_{c=1}^8 \sum_{m=April}^{July} I_{cpm}^{2003} \right) = 0.0203$$

$$(3) R_c^{Lost} = \sum_{p=1}^{10} \left[ (\%T_p^{2003}) (1 + F) \left( 3 \sum_{m=April}^{July} I_{cpm}^{2003} \right) - 3 \sum_{m=April}^{July} I_{cpm}^{2003} \right]$$

$$(4) R_c^{Covered} = \sum_{p=1}^{10} (\%T_p^{2003}) (1 + F) \left( 3 \sum_{m=April}^{July} I_{cpm}^{2003} \right)$$

For each of the 10 steel product categories (denoted by the subscript  $p$ ) affected by the US steel safeguards, we first calculate a product response factor ( $F_p$ ) that roughly measures how much the value of imports of that product category changes in response to a change in tariff ( $T$ ). To calculate this response factor, we first take the change in the value of imports ( $I$ ) affected by the safeguard in 2003 relative to 2002. Specifically, we look at imports for the months ( $m$ ) April 2002 to July 2003 for the eight complainants ( $c$ ) as a whole and divide by the percentage point absolute difference in tariff rates between 2003 and 2002 ( $\%T_p^{2002} - \%T_p^{2003}$ ).

This calculation, shown in equation (1), yields a coefficient that represents the average dollar increase in imports of a steel product category from

all eight complainants for each percentage point reduction in the tariff. This dollar coefficient is then divided by the dollar value of imports of that product category from all eight complainants in the April to July 2002 period to yield that product's response factor.

As the next step, we calculate a weighted average of the 10 response factors, weighting each product by the value of its imports. This is shown in equation (2). The resulting average response factor ( $F$ ) of 2 percent indicates that the value of steel imports increases by 2 percent for every percentage point reduction in the safeguard tariff. Most economists would deem this figure a conservative estimate.

To determine the level of retaliation for each complainant under the exports lost standard ( $R_c^{Lost}$ ), we first take the base of imports in the April to July 2003 period for each product and complainant and multiply it by three (to annualize a four-month base). We then multiply it by the quantity 1 plus the response factor ( $F$ ) and finally by the safeguard tariff on that product as of 2003.

This calculation, shown by the first term of equation (3), creates a counterfactual value for steel imports of that product for each complainant. From this counterfactual value, we then subtract triple the actual value of imports of that product from that complainant between April and July 2003 (again to annualize a four-month figure) to obtain exports lost for each complainant and product. As a last step, we sum over the 10 products affected by the steel safeguard to obtain the level of retaliation for each complainant.

To determine the level of retaliation for each complainant under the European Union's exports covered standard ( $R_c^{Covered}$ ), we use the same methodology, except that we do not subtract the annualized value of 2003 imports from the counterfactual value before summing over the 10 products. This calculation is shown by equation (4).

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