

# Cato Institute Briefing Paper No. 32: Anti-dumping Laws Trash Supercomputer Competition

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## Executive Summary

America's anti-dumping laws punish consumers and penalize foreign companies trying to compete in the U.S. market. The dumping charge recently upheld against Japanese supercomputer makers shows the economic illogic and systematic unfairness of the law.

By imposing punitive tariffs of up to 454 percent, the U.S. Department of Commerce has effectively killed import competition in the domestic supercomputer market. As a result, a federally funded agency has been forced to cancel a contract--depriving taxpayers and consumers alike of the full benefits of price competition.

The law is so biased against importers that the Commerce Department upholds 96 percent of the initial claims it receives. As a result, the law has become merely a tool to protect domestic industries from competition. Congress should repeal the anti-dumping code.

## Introduction

On May 17, 1996, the U.S. government flirted with history. For the first time, a federally funded agency decided to buy a supercomputer made by a non-U.S. company. An agency of the University Corporation for Atmospheric Research (UCAR) in Boulder, Colorado, awarded a \$35 million, five-year leasing contract for a weather-simulating supercomputer to a subsidiary of NEC of Japan.

Thanks to perverse U.S. trade laws, however, history was put on hold. HNSX Supercomputing, the U.S.-based subsidiary of NEC, had outbid two other finalists for the contract--Fujitsu U.S., another Japanese-owned subsidiary, and Cray Research of Eagan, Minnesota--to supply a supercomputer to UCAR's National Center for Atmospheric Research (NCAR) for modeling weather patterns. [\[1\]](#) Two months later Cray officially cried foul.

In a July 29, 1996, petition to the International Trade Administration (ITA), a division of the U.S. Commerce Department, the company claimed that it had been the victim of "dumping." Cray argued that HNSX had used its parent company's "deep pockets" to sell the weather supercomputer for less than one-fifth its cost, thus undercutting Cray's bid by dumping its system on the U.S. market. [\[2\]](#)

Predictably, the ITA upheld the dumping charge, as it does in the overwhelming majority of cases. On September 26, 1997, a second U.S. agency, the International Trade Commission (ITC), made the dumping charge final with its determination that Cray Research had suffered "material injury." The U.S. government will now impose punitive tariffs of between 173 percent and 454 percent on all supercomputers imported from Japan, a barrier so high it effectively bars them from the market.

The Cray-NEC supercomputer case demonstrates everything wrong with U.S. anti-dumping law. Throughout the case, importing firms confronted a hostile agency operating under rules that virtually guarantee a hostile ruling, with the end result that overseas competitors have been forced out of the U.S. supercomputer market in the name of defending competition.

### **U.S. Anti-dumping Laws: A Stacked Deck**

In theory, anti-dumping laws are supposed to protect consumers from foreign companies that try to corner the U.S. market by selling products at an artificially low price. The argument behind the law is that, although consumers benefit in the short run, dumped goods could drive U.S. competitors out of the market, leaving the dumper free to use its newly gained monopoly power to charge artificially high prices.

In practice, use of predatory pricing to gain a monopoly position virtually never succeeds. As soon as a company seeks to raise its prices above the prices that would prevail in a competitive market, other firms have an incentive to enter or reenter the market. Competition in an open, global trading system keeps prices from rising above the market price. The real purpose of the anti-dumping laws is to block imports in selected industries. Originally intended to safeguard competition, those laws have become the weapon of choice for U.S. companies seeking relief from competition.

Cray's competitors for the UCAR contract faced a stacked deck from the beginning. Even before the NCAR announced the winning bid, Cray had convinced two sympathetic members of Congress, Reps. David Obey (D-Wis.) and Martin Olav Sabo (D-Minn.), to press the Commerce Department to investigate Cray's competitors. The ITA obliged, warning in a May 20, 1996, letter that the contract that had been awarded three days earlier could be in violation of anti-dumping laws. Essentially, the ITA collected evidence on behalf of Cray and then signaled the probable success of the case--sparing Cray the expense and uncertainty of initiating the case itself.

The ITA supposedly acts as "gatekeeper" for anti-dumping actions by evaluating initial claims of dumping and supposedly dismissing spurious petitions. Unfortunately for consumers, the ITA tends to keep the gates open wide. From 1980 to 1997, the agency found foreign firms guilty of dumping in 96 percent of cases filed (804 of 837 petitions). [\[3\]](#)

That high rate should not be surprising, since the ITA is also charged with "helping U.S. businesses compete in the global marketplace." As a result, the agency that is responsible for investigating dumping claims also acts as an advocate for complainants throughout the anti-dumping investigation and decisionmaking process. As a part of its mission to promote U.S. goods, the ITA will provide free legal assistance to firms filing anti-dumping petitions in its own office. And the ITA will assist a petitioner to ensure that a petition passes the ITC's injury determination test. [\[4\]](#)

The success rate of anti-dumping petitions can also be attributed to the laws that regulate the way ITA calculates the "fair value" of the imported good. The ITA must, by law, disregard some high-priced sales in the U.S. market when calculating the dumping margin (the percentage difference between an average "fair value" and actual individual sales). That almost virtually guarantees a finding of dumping. The magnitude of the bias varies, but the ITA's method is believed to inflate the dumping margin by 10 percent. [\[5\]](#) Compounding the distortion, the ITA adds to the "fair price" an arbitrary markup of 10 percent for overhead and 8 percent for profit. Such adjustments are not needed because, in a competitive industry, profit margins will be close to zero, and the costs and prices reported by oligopolistic industries will already include a profit margin.

When a low sales volume in the U.S. market makes it impossible to determine "fair value," the ITA attempts to estimate a firm's costs. The ITA sends an extensive questionnaire--100 to 200 pages long, in English--to the foreign company. The accused firm is responsible for translating its answers into English and, frequently, converting its accounting standards to U.S. standards. [\[6\]](#) To add to the expense and difficulty, the importer must answer all of the questions in a short period of time--usually two to four weeks, depending on when the ITA desk officer gets to the case. [\[7\]](#)

If the firm refuses to cooperate, because of either financial or time constraints, or because it feels that the questions are too intrusive, the ITA can increase the size of the dumping margin to penalize the importer for noncooperation.

## **"Worst Information Available"**

Given the ITA's institutional bias in the case, NEC filed a petition in the U.S. Court of International Trade to block ITA's pending decision. In the civil law courts, the ITA's preliminary investigation would have been equivalent to the judge and jury getting together to collect, investigate, and evaluate evidence for a plaintiff. However, the Court of International Trade eventually rejected NEC's case, explaining that the ITA "routinely" confers with anti-dumping filers before an investigation. Since that behavior was "normal" and legal, the court ruled the case could proceed.

Because NEC was pursuing its parallel case through the Court of International Trade, however, it did not participate in the ITA's anti-dumping investigation. Under U.S. anti-dumping law, if the ITA cannot calculate either the "fair value" of the imported good or the cost of the good from data the foreign firm provides because of incomplete answers, the ITA uses the "best information available." Unfortunately, that information is often hearsay estimates of costs.

To determine the margin of dumping, the ITA either searches the popular and business press to infer information from similarly reported sales or costs, or, more commonly, it relies on the petitioning U.S. firm for information about the alleged dumping practices of its rivals. Of course, domestic firms have a huge incentive to provide data that will maximize the margin.

The use of "best information available" is the biggest source of bias in ITA dumping decisions, and it is the core problem in the Cray-NEC vector supercomputer case. The ITA used Cray's suppositions about NEC's costs in its anti-dumping calculations, which led to the conclusion that NEC had priced its bid more than 80 percent below market cost.

## **Guilty until Proven Innocent**

A dumping charge inflicts immediate damage on the competing importer. After an initial dumping determination by the ITA, and even before the ITC can weigh in on whether the U.S. industry was "injured" by competition, the importing firm must post a bond to cover the cost of a duty equal to the dumping margin. [8] There are two rounds during which the ITA assesses the allegation of dumping, and the importer is liable for the duty from the first round of investigation. What's more, not only is the importer liable for a duty on future imports, but the dumping duty can also be imposed retroactively on any imports that were sold 90 days before the dumping determination. [9]

In addition, the dumping margin can be changed after the ITA's initial determination, meaning that an importing firm cannot be sure what its final duty will be. As a result, the importer and its customers face an almost unlimited potential liability. As a consequence, importers confront a depressed business environment with the constant threat of potentially increased costs due to dumping duties and constant uncertainty about the final prices of their goods.

Japanese supercomputer companies have paid dearly for that uncertainty. The initial finding that NEC had allegedly dumped its computer on the U.S. market caused the National Science Foundation, the government sponsor of the project, to cancel the supercomputer order. [10] At the news of the ITA's final dumping determination, NEC's stock fell to a new low. [11]

## **A Chilling Effect on the Supercomputer Market**

Even though Fujitsu and NEC were the only foreign competitors to make it to the final round of the supercomputer bidding process, anti-dumping complaints are not brought against individual firms. Instead, they are brought against all firms in a foreign country. That form of collective justice is particularly chilling in trade, because the ITA assessed an anti-dumping duty against "all other manufacturers" of vector supercomputers in Japan. Since there are no other manufacturers of supercomputers, the ITA arbitrarily set the value of the duty at 313.54 percent. [12]

In this case, the anti-dumping duty law is particularly pernicious. The "all others rate" of the dumping duty will now be in force for the next five years. That preemptive duty of more than 300 percent effectively seals off the American market from any other Japanese company that might develop a supercomputer, even though the potential competitor had nothing to do with the initial case.

What's more, the ITA refused to adapt its rules to differing product categories. The ITA imposed the duty on all vector supercomputer parts and all vector supercomputers that NEC or Fujitsu would import, even those destined for their subsidiaries. The logic behind that ruling was to prevent either company from importing a computer under the guise of internal consumption, only to sell the computer on the market.

By imposing a duty on all vector supercomputer parts, the ITA also closes the U.S. market to Japanese parts resellers. Since some vector supercomputer parts are interchangeable with other computer components, the Customs Office must make some fairly arbitrary decisions about whether a computer component could or would be used in a vector supercomputer. Such arbitrariness again depresses the ability of firms to compete and further restricts the U.S. market in an unintended manner.

### **The "Damage" of Price Competition**

After a firm is found guilty of dumping by the ITA, the ITC must determine whether domestic firms have been hurt by the allegedly dumped goods. If the ITC finds the domestic industry has not suffered injury, the case is dropped, but if it decides that damage has been inflicted, a duty based on the dumping margin found by the ITA is imposed.

To make the material injury determination, the ITC commissioners can make either one of two determinations. First, they can find that the dumped imports have substantially injured the industry. While the ITC can consider alternative reasons for an industry's performing poorly, the ITC cannot assign weights to the relative importance of the different factors. [13] If the U.S. firm has performed poorly, and if the firm's poor performance could in any way be linked to imports, then the importer is guilty of causing material injury.

Second, the ITC can find material injury even when no goods have actually entered the U.S. market. [14] The ITC need find only that there is a reasonable chance that additional imports would flow into the United States and that the volume of those import flows would be high enough to damage the domestic industry.

Since Cray still holds a commanding lead in the supercomputer industry, and has nearly total dominance in the vector supercomputer industry, it was impossible for the ITC to find that one contract could damage Cray. The one sale would have been approximately 5 percent of Cray's annual sales.

Instead, the ITC ruled that the mere threat of competition would irreparably damage Cray. In 1995 both NEC and Fujitsu sales representatives made bold claims about increasing exports to the United States, and it was on the basis of those sales projections that the ITC said that Cray faced potentially insuperable damage. [15] In most courts, hearsay evidence, especially forecasts made by sales representatives, is inadmissible. But in the anti-dumping proceedings, such evidence is allowed. And since the ITC is required to count imports in a fairly broad manner, many sales that the ITC counted as threatening imports were actually sales for which Cray did not even participate in the bidding process. [16]

In a regrettable change, the Uruguay Round of the General Agreement on Tariffs and Trade now mandates that the dumping margins must be considered when deciding material injury. [17] So, if the ITA makes a biased dumping margin determination, that bias will now carry over into the ITC's decision about whether there is injury to the industry. As a consequence, when the ITA finds large dumping margins, as in the Cray-NEC vector supercomputer case, the ITC is almost obliged to find material injury.

Because the ITC is explicitly forbidden to weigh the relative effects of different causes, it can only state whether imports have had a substantial, or material, impact on prices, profits, or production of the domestic industry. That requirement is disingenuous. "Unfair" competition is not competition that "hurts" a domestic producer. In a market economy, competition by definition reduces prices and makes each firm worse off than it would be were it a sole monopolist. It is the end users and consumers who benefit from competition. And it is consumers--in this case U.S. taxpayers--who lose the benefits of competition that is explicitly barred by anti-dumping laws.

### **An Unfair Law, Not Unfair Competition**

Far from being a victim, Cray Research is the preeminent global producer of high-end supercomputers. In 1996 over 25 percent of the 500 fastest computer installations in the world used Cray machines (131 of 500), while NEC and

Fujitsu, combined, had approximately 10 percent of the installations (59 of 500). [18] Cray's sales in 1995 were \$676 million, with \$437 million in backlogged (i.e., unfilled) orders. [19] And in 1996 Cray was purchased by Silicon Graphics, a multi-billion-dollar company, in part so Silicon Graphics could enter the supercomputer market and extend its product range. Since the entire supercomputer market is less than Silicon Graphics' revenue, Silicon Graphics, too, can provide deep pockets. [20]

While Cray has had a history of producing high-quality supercomputers, its recent restructuring and acquisition indicate that it has found it difficult to adapt to a new market and additional competition. [21]

Much of that competition has come from cheaper computer workstations produced by domestic competitors. In the dynamic U.S. computer industry, lines between markets have become blurred. Personal computers now provide stiff competition for computer workstations (such as those produced by Silicon Graphics and used to create the movie *Toy Story*), and computer workstations now compete with supercomputers. [22]

Because Cray has derived much of its revenue from government (especially military) contracts that have mandated purchases from U.S. companies, it has not been accustomed to overseas competition. But Cray can no longer count on long-term leases from U.S. government and military installations. Changing patterns of demand and competition have squeezed Cray's bottom line. Between 1990 and 1995 its labor costs increased by over 15 percent, but its workforce shrank by 17 percent, and sales fell by 18 percent. [23] At the same time, the number of "safe" contracts that Cray obtained, those with "Buy American" requirements, fell sharply as defense cutbacks led to fewer possible contracts.

The backlog order data, in fact, give a hint of Cray's inability to fully meet market demands. While customers would like to purchase computers from Cray, it has not been able to meet its customers' expectations. And while attention has been focused on Fujitsu's and NEC's alleged misbehavior, the reason that NCAR did not take Cray's bid was that Cray submitted a proposal for a computer system that not only did not exist but had not even been approved for development by Cray's management.

According to the NCAR's director, the computer that Cray proposed could pass only one of several tests devised to examine the computer's speed at calculating the weather simulations. It was for that reason that the NCAR's director said that Cray's final bid, submitted after NCAR testing, involved "an unacceptable technical risk" and NCAR would never have accepted Cray's bid. [24]

While Cray could not use the power of the U.S. government to thwart the domestic competition it faces from producers at the low end (such as Hewlett-Packard, IBM, Intel, and DEC), U.S. anti-dumping law has provided protection against its competitors abroad.

### **The Broader Danger to Competition**

The Cray-NEC case sets a particularly bad precedent because the anti-dumping process itself encouraged political meddling in a government procurement process. It enabled an activist ITA to protect a U.S. company in the high-end computer business--increasing domestic computer costs and hurting the ability of U.S. researchers to stay at the top of their field.

Not only is research compromised, but the entire high-end supercomputer market now is facing reduced competition and higher prices. While Cray can promise to restrain prices, the market is a better enforcement mechanism, for without the market as a check, industrial users and government agencies like UCAR must spend more money for less computing power. If competition is good for the Japanese supercomputer market, of which U.S. manufacturers have captured a 30 percent share, why is it not good for the U.S. market?

The damage from this case spreads beyond the supercomputer industry to the whole government procurement process. Interference from politicians and government agencies is not conducive to an open, fair bidding process. In the Uruguay Round of GATT, the United States pushed hard and successfully to have government procurement added to the list of negotiated issues. And yet, when a government-funded agency decided to buy from a foreign manufacturer, the competing American firm merely needed to complain to its congressional representatives to stop the sale.

## Conclusion

Administrative relief laws, such as the anti-dumping law used by Cray Research to deny NEC a contract with the U.S. government, represent active use of the trade laws by government officials to completely close an important U.S. market to foreign competitors.

It is precisely because the anti-dumping code is so stacked against importing firms that it provides an easy vehicle for both industry and government meddling in the market. Since the "best information available" criterion and material injury determination are integral parts of the anti-dumping process, superficial reform of technical rules will not fix the problem. Instead, the anti-dumping laws themselves should be repealed.

Repealing those laws would elicit protest from industries long accustomed to using anti-dumping laws to blunt competition. However, this administrative trade barrier prevents consumers and downstream users of products from enjoying the full benefit of free trade--competition and lower prices.

Absent a change in the law, NEC and other victims of the U.S. anti-dumping code can appeal a final decision to the U.S. Court of International Trade within 30 days after the ITC's final report. The home government of the importer found guilty of dumping can also appeal the final decision to the World Trade Organization. On April 29, 1997, the Japanese government took the first step by complaining about this dumping case before the WTO's dumping committee. If a WTO dispute settlement panel were to find that the ITC's decision was not in conformity with U.S. obligations under the Uruguay Round, the U.S. Trade Representative could request that the ITC modify or reverse its decision.

But whatever the final outcome of the supercomputer dumping case, no company should be subject to such a long, arbitrary, and damaging process in which everyone loses except the protected domestic industry.

The lesson that policymakers should learn from the past 15 years of explosive growth in computers and computer services is that government intervention only prevents the dynamic marketplace from forcing and enforcing innovation.

The United States has a very competitive computer market. Given that consumers have benefited from constantly falling computer prices, the worst policy prescription is to reduce competition and keep prices paid by consumers and taxpayers alike artificially high. The injustice of this latest abuse of U.S. trade law makes it more clear than ever that we must dump the whole U.S. anti-dumping code.

## Notes

[1]. For a complete description of the contract, see Bill Buzbee, director of NCAR, Testimony before the International Trade Commission, August 27, 1997, at [www.scd.ucar.edu/info/itc.html](http://www.scd.ucar.edu/info/itc.html).

[2]. The formal complaint is "Vector Supercomputers from Japan," International Trade Administration case no. A-588-841 and International Trade Commission investigation no. 731-TA-750.

[3]. These data are readily available at [www.ita.doc.gov/import\\_admin/records/stats/allstats.htm](http://www.ita.doc.gov/import_admin/records/stats/allstats.htm). In addition to a table of prepared statistical data, the ITA has a computerized listing of all of the cases filed, along with their Federal Registry numbers, so it is possible to look up the dumping margins.

[4]. See the home page of the ITA: [www.ita.doc.gov](http://www.ita.doc.gov).

[5]. Tracy Murray, "Administration of the Antidumping Duty Law," in *Down in the Dumps*, ed. Robert Litan and Richard Boltuck (Washington: Brookings Institution Press, 1991),p. 37.

[6]. It is important to note that by using the total cost of the good, the ITA will always find dumping. In both legal antitrust proceedings and economic analysis, variable cost (total costs minus fixed costs) is used as a benchmark for pricing. In addition, given the short time frame within which the ITA has to decide a preliminary case (often just one

to two weeks), it would be impossible for the ITA to completely net out those costs even if it attempted to do so.

[7]. See N. David Palmeter, "The Antidumping Law: A Legal and Administrative Nontariff Barrier," in *Down in the Dumps*, pp. 64-65. One case cited therein is particularly interesting. In a 1990 case involving chilled Atlantic salmon from Norway, the ITA sent a whopping 158-page questionnaire to fish farms and exporters in Norway.

[8]. The value of the bond is set by determining the dollar value of imports that the ITA wants to cover and multiplying it by the dumping margin. So, if the petitioner alleges that \$10 million in imports was dumped and the ITA finds a dumping margin of 50 percent, the importer must post a bond of \$5 million.

[9]. In a careful analysis of anti-dumping laws, Robert Staiger and Frank Wolak chart the effect of filing anti-dumping petitions and show that both petitioning firms and alleged dumpers react to the outcome of the preliminary ITA decision to impose a duty (which it always does), even if the order is later terminated (i.e., no duties are imposed). See Robert Staiger and Frank Wolak, "Measuring Industry-Specific Protection," in *Brookings Papers on Economic Activity: Microeconomics*, ed. Martin Neil Baily, Peter C. Reiss, and Clifford Winston (Washington: Brookings Institution Press, 1994).

[10]. "NSF Slams Affiliate's Attempt to Buy NEC Supercomputers," *Japan Economic Newswire*, August 30, 1997.

[11]. "NEC Drops to Another 1997 Low on the TSE," Jiji Press Ticker Service, September 1, 1997.

[12]. This amazing quirk of the anti-dumping duty laws is found in § 735(c)(5) of implementing legislation for the Uruguay Round of GATT: H.R. 316, 103d Cong. 2d sess., p. 870.

[13]. See 19 U.S.C. § 1677(7)(B).

[14]. See 19 U.S.C. §§ 1677(7)(F)(ii), 1673b(a).

[15]. See "Vector Supercomputers from Japan," ITC Investigation no. 731-TA-750, § 5.

[16]. See "Dissenting View: Vector Supercomputers from Japan," ITC Investigation no. 731-TA-750, § 3.

[17]. See 19 U.S.C. § 1677(7)(C)(iii)(V).

[18]. Eric Strohmaier et al., "High-Performance Computing in Industry," University of Tennessee, February 24, 1997, photocopy; and TOP500 list for every year from 1993 to 1997 at [www.netlib.org/benchmark/top500.html](http://www.netlib.org/benchmark/top500.html).

[19]. The sales figure comes from Cray's 1996 annual report, reprinted in *S&P Daily News*, May 7, 1996. The backlog figure is from *PR Newswire*, January 25, 1996.

[20]. The sales and revenue figures are from "Silicon Graphics Reported Ready to Rescue Cray," *New York Times*, February 26, 1996.

[21]. In her dissenting opinion, Commissioner Janet Nuzum noted the stiff competition. See "Dissenting View," § 2.

[22]. "Giant Computer Virtually Conquers Space and Time," *New York Times*, September 2, 1997.

[23]. The numbers are from the author's calculations. The sales and cost of goods sold figures come from Cray's 1996 annual report. The employment data are from *Hoover's Handbook of American Business*, 1997 (Austin, Tex.: Hoover's Business Press, 1997). The unit labor cost data are approximated by taking the ratio of cost of goods sold to employees. The data are even more grim when 1996 (the year Cray was acquired by Silicon Graphics) is included. A comparison of 1991 data with 1996 data shows that employment actually shrank by over 57 percent, from 5,395 employees to 2,300.

[24]. See "Comments on 'Technical Risk' from the UCAR Post ITC-Hearing Brief," September 12, 1997, at [www.scd.ucar.edu/info/additc.html](http://www.scd.ucar.edu/info/additc.html).

