

UCLA

UCLA Pacific Basin Law Journal

Title

International Trade Conflict in High Technology Sectors: The Japanese Satellite Example

Permalink

<https://escholarship.org/uc/item/1ts5573q>

Journal

UCLA Pacific Basin Law Journal, 12(2)

Author

Reynolds, Glenn H.

Publication Date

1994

DOI

10.5070/P8122022054

Copyright Information

Copyright 1994 by the author(s). All rights reserved unless otherwise indicated. Contact the author(s) for any necessary permissions. Learn more at <https://escholarship.org/terms>

Peer reviewed

INTERNATIONAL TRADE CONFLICT IN HIGH TECHNOLOGY SECTORS: THE JAPANESE SATELLITE EXAMPLE

Glenn H. Reynolds†

I. INTRODUCTION

Commerce in high technology items has been a source of international trade friction for some time.¹ Arguments addressing the friction have frequently focused on the feasibility of an activist or strategic policy in this field² and the constructive responses of other trading nations to the development of such policies.³ Of late, two particular industry sectors have received

† Associate Professor of Law, University of Tennessee. J.D., Yale Law School, 1985; B.A., University of Tennessee, 1982. Professor Reynolds chairs the policy committee of the National Space Society, and the International Space Law committee of the American Bar Association, and is the author (with Robert P. Merges) of *OUTER SPACE: PROBLEMS OF LAW AND POLICY* (Westview Press, 2d ed. 1994). This article is based on prepared testimony presented to the United States Senate Finance Committee, Subcommittee on International Trade, in June 1993 and on comments submitted to the United States Trade Representative's office in July 1989. I would like to thank my research assistant, Brannon Denning, for his usual excellent work.

1. See, e.g., THOMAS HOWELL ET AL., *THE MICROELECTRONICS RACE: THE IMPACT OF GOVERNMENT POLICY ON INTERNATIONAL COMPETITION* (1988); RICHARD NELSON, *HIGH TECHNOLOGY POLICIES: A FIVE NATION COMPARISON* (1984); LAURA D'ANDREA TYSON, *WHO'S BASHING WHOM? TRADE CONFLICT IN HIGH TECHNOLOGY INDUSTRIES* (1993); Glenn H. Reynolds, *United States Telecommunications Trade Policy: Critique and Suggestions*, 58 TENN. L. REV. 573 (1991).

2. Traditional analysis of international trade matters has generally turned on questions of "comparative advantage." See ROBERT GILPIN, *THE POLITICAL ECONOMY OF INTERNATIONAL RELATIONS* 22 (1987). The assumption was that some nations, because of relatively immutable factors, such as climate and natural resources, would have an advantage in producing particular commodities over others. Since the causes of such an advantage were fixed, governmental policies might do harm, but could not do much good. *Id.* at 173-75. More recently, however, an increasing number of nations have proven capable of creating their own comparative advantage through technological, economic, and regulatory approaches designed to foster international competitiveness. Theories that purport to explain the success of these approaches generally refer to them as "strategic trade policies," and thus are known as "strategic trade theories." See generally Reynolds, *supra* note 1, at 594-98 (discussing strategic trade theories).

3. For a summary of this debate, see Reynolds, *supra* note 1, at 586-98.

special attention: the communications sector⁴ and the space sector.⁵ While the "incidents" methodology⁶ has attained a measure of popularity in the public international law area, it has not been applied in any great measure to the field of international economic law though one might expect it to be helpful there as well. The recent United States "Super 301" action targeting the restrictive satellite procurement policies of the Japanese government is thus worth examining as it encapsulates much of the dispute over high technology procurement and suggests that well-conceived and well-executed trade actions can address unfair foreign trade practices in high technology areas. Indeed, it suggests that limits on unilateral enforcement, as supported by the United States in the most recent GATT round,⁷ may ultimately make unfair foreign practices more prevalent and international trade less free unless more effective means of multilateral enforcement are substituted.

II. TARGETING SPACE: THE JAPANESE STRATEGY

It is no secret that the Japanese government made a practice of discovering especially attractive market opportunities and then targeting those industry sectors with policies intended to make its industries more competitive in world markets. This strategy typically involves subsidies both direct and, more commonly, indirect. The indirect subsidies generally include a protected home market and discriminatory government

4. See, e.g., Reynolds, *supra* note 1; Glenn H. Reynolds, *Speaking with Forked Tongues: Mercantilism, Telecommunications Regulation, and International Trade*, 21 LAW & POL'Y INT'L BUS. 119 (1989); JONATHAN ARONSON & PETER COWHEY, WHEN COUNTRIES TALK: INTERNATIONAL TRADE IN TELECOMMUNICATIONS SERVICES (1988).

5. See, e.g., GLENN H. REYNOLDS & ROBERT P. MERGES, OUTER SPACE: PROBLEMS OF LAW AND POLICY (2d ed. 1994) at ch. 7; Glenn H. Reynolds & Robert P. Merges, *Toward an Industrial Policy for Outer Space: Problems and Prospects of the Commercial Launch Industry*, 29 JURIMETRICS J. 7 (1988); *Impact of START Agreements and Other Industry Incentives on Commercial Space Markets: Hearings Before the Subcomm. on Space of the House Comm. on Science, Space and Technology*, 102d Cong., 1st Sess. 76 (1991) (hereinafter *Space Commerce Hearings*).

6. "Incidents" methodology is the notion that international norms may be discovered through studies of the parties' behavior in individual cases. See generally W. Michael Reisman, *International Incidents: Introduction to a New Genre in the Study of International Law*, 10 YALE J. INT'L L. 1 (1984); Andrew R. Willard, *Incidents: An Essay in Method*, 10 YALE J. INT'L L. 21 (1984).

7. See, e.g., Gephardt Indicates Support for GATT, Says Problems Can Be Worked Out in Bill, Int'l Trade Daily (BNA), Dec. 17, 1993, available in LEXIS, ITRADE Library, INTRAD File (noting Senator Gephardt's agreement in the Uruguay Round to diminish the capacity of the U.S. to engage in unilateral enforcement).

procurement.⁸ In areas marked by steep learning curves and significant scale economies, such an approach can allow a nation that initially lacks competitiveness to “leapfrog” its competitors and achieve a degree of efficiency and hence competitiveness that would have been prohibitively expensive to attain in a truly market-based environment.⁹

In the mid-1980s the Japanese appeared to be targeting space markets for such an approach.¹⁰ Japan was developing a new launch vehicle, the H-2, designed to contain no U.S. technology and hence to be beyond the reach of U.S. export controls.¹¹ It was also engaging in discriminatory procurement practices, buying satellite hardware exclusively from domestic firms even though those firms lagged far behind U.S. companies in technology, reliability, and cost.¹² This strategy, employing government research and development assistance accompanied by discriminatory procurement on the part of the government and NTT (Nippon Telephone and Telegraph)¹³ and a *de facto* protected home market, appeared to match that employed by Japan in other sectors such as steel¹⁴ and semiconductors.¹⁵ The question for the

8. See, e.g., TYSON, *supra* note 1, at 86-87 (noting that “[t]he history of the Japanese semiconductor industry is a dramatic story of successful infant-industry promotion and protection.”); HOWELL, *supra* note 1 (describing Japanese strategy); NELSON, *supra* note 1, at 47-51 (describing Japanese strategy of protected home markets and discriminatory procurement); Paul Krugman, *Import Protection as Export Promotion: International Competition in the Presence of Oligopoly and Economies of Scale*, in *MONOPOLISTIC COMPETITION AND INTERNATIONAL TRADE* (Henry Kierzkowski ed., 1984). This strategy is very different from that pursued by the U.S. in the satellite procurement context. See Morris Teubal & Edward Steinmuller, *Government Policy, Innovation and Economic Growth: Lessons from a Study of Satellite Communications*, 11 RES. POL’Y 271 (1982).

9. See sources cited *supra* note 8.

10. See Jeff Shear, *Japan Expanding to Outer Markets*, INSIGHT, Sept. 11, 1989, at 40-41; Reynolds & Merges, *Toward an Industrial Policy for Outer Space*, *supra* note 5; James Kirwan, *Japan Now Sets Its Sights on Space*, WALL ST. J., Mar. 19, 1987, at 34.

11. See Patrick M. Mayerchak, *Asia in Space: The Programs of China, Japan, and Indonesia*, in *SPACE: NATIONAL PROGRAMS AND INTERNATIONAL COOPERATION* 91, 94-96 (W. Thompson & S. Guerrier eds., 1989). See also Jack McCall, “The Inexorable Advance of Technology?” *United States and Multilateral Efforts to Curb Ballistic Missile Proliferation and Its Consequences*, 32 JURIMETRICS J. 387 (1992) (discussing use of U.S. export controls for both national security and international trade purposes, and foreign reactions to such uses).

12. See *U.S. Companies Skeptical; Administration Wants Tokyo to Open New Satellite Bids*, COMM. DAILY, July 10, 1989, at 4.

13. See *Renewing Super 301: Hearings Before Subcomm. on International Trade of the Senate Finance Comm.*, 103d Cong., 1st Sess. 74-80 (1993)(statement of Glenn H. Reynolds)[hereinafter *Renewing Super 301*].

14. See THOMAS HOWELL ET AL., *STEEL AND THE STATE* (1988); Thomas K. McCraw & P. O’Brien, *Production and Distribution: Competition Policy and Industry Structure, in AMERICA VERSUS JAPAN* 84-86, 92-100 (T. McCraw ed., 1986).

15. See HOWELL, *supra* note 1; TYSON, *supra* note 1, at 86-87.

U.S. was whether to allow that approach to succeed in the space arena as it had in other fields.

III. "SUPER 301" AND THE UNITED STATES' RESPONSE TO JAPANESE SATELLITE TARGETING

In response to the perception that Japanese (and other nations') "targeting" of particular sectors with a variety of discriminatory practices and subsidies harmed U.S. industries in those fields, Congress introduced a number of additional provisions into U.S. trade law to provide remedies for such practices. The most venerable was the "Section 301" action, so-named because it was originally included as Section 301 of the 1974 trade act.¹⁶ To summarize rather briefly, Section 301 actions allow interested parties (usually, though not always, affected businesses or labor organizations) to petition the United States Trade Representative for an investigation of a foreign practice that unfairly discriminates against or disadvantages U.S. trade.¹⁷ If the investigation concludes that U.S. interests are being harmed by an unfair foreign practice, then the Trade Representative is required to negotiate an end to the foreign practice and is granted sweeping powers to retaliate against the foreign nation if the negotiations are unsuccessful.¹⁸

Section 301 has frequently proven to be a valuable weapon in the U.S. trade arsenal, although it suffers from a number of deficiencies. Perhaps its greatest weakness is that Section 301 relies on initial action by one or more of the affected industries. These industries may be reluctant to so petition for fear that they will be subject to retaliation.¹⁹ One solution was to require the Trade Representative to initiate actions on its own against for-

16. Trade Act of 1974 § 301, 19 U.S.C. § 2411 (1988).

17. *Id.* § 302(a)(1).

18. *Id.* § 304(a)(1)(B). Specifically, Section 301 mandates action where the foreign practice means that "the rights of the United States under any trade agreement are being denied or . . . an act, policy or practice of a foreign country — violates, or is inconsistent with, the provisions of, or otherwise denies benefits to the United States under, any trade agreement, or . . . is unjustifiable and burdens or restricts United States Commerce." *Id.* § 301(a). Action by the United States is permitted, but not mandatory, where "an act, policy, or practice of a foreign country is unreasonable or discriminatory and burdens or restricts United States commerce." *Id.* § 301(b). For more analysis of the Section 301 action, see Bart Fisher and Ralph Steinhardt, *Section 301 of the Trade Act of 1974: Protection for U.S. Exporters of Goods, Services, and Capital*, 14 LAW & POL'Y INT'L BUS. 569 (1982).

19. See *Industries, Alleging Inadequate Enforcement of U.S. Trade Agreements, Support Baucus Bill*, 7 Int'l Trade Rep. (BNA) 1110 (July 18, 1990) (quoting Lori Garver, National Space Society, as saying that an individual company's involvement "exposes it to retaliation, while its competitors receive a free ride from its action"). See also Fisher & Steinhardt, *supra* note 18, at 690 (stating that "[i]n operation,

eign countries whose unfair practices were particularly injurious to U.S. interests. This, in short, is the purpose of the "Super 301" action. Super 301 was created by the 1988 Omnibus Trade and Competitiveness Act.²⁰ Added as Section 310 of the 1974 Trade Act, the Super 301 provision required that the Trade Representative identify foreign countries whose unfair practices, including "major barriers and trade distorting practices,"²¹ significantly injure U.S. trade. Once so identified, those foreign countries would become the subject of a self-initiated Section 301 investigation by the Trade Representative.²²

In its first round of applying Super 301, the Trade Representative identified Japan's ban on foreign satellite procurement as a "priority practice" under the Super 301 provision.²³ In its notice the Trade Representative stated,

As part of a "long range vision on space development" Japan prohibits the procurement of foreign satellites by government entities if such a purchase interferes with "indigenous development objectives." Japan's policy of promoting indigenous production capability by prohibiting government procurement of foreign satellites applies to the entire range of satellites (broadcast, communications, earth resource, weather). The United States has long been the world leader in satellite production, and is thus denied significant market opportunities by this policy.²⁴

This notice set in motion a process of negotiation that culminated one year later with an agreement between the U.S. and Japan in which Japan agreed to drop the procurement ban and take other steps to ensure that its procurements were undertaken on a market basis.²⁵

Among other things, that agreement provided that Japanese "[p]urchasing entities will follow open, transparent and non-discriminatory procedures in making acquisitions of satellites. Procedures will accord with the GATT agreement on Government Procurement, as amended." Furthermore, the Japanese government removed its explicit ban on procurement of non-Japanese

however, Section 301 is likely to be more disappointing to petitioners than to internationalists").

20. Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, 102 Stat. 1107 (codified as amended at 19 U.S.C. § 2901 (1993)).

21. Trade Act of 1974 § 310(a)(1).

22. For a concise summary of the "Super 301" process, see HOUSE COMM. ON WAYS AND MEANS, 103D CONG., 1ST SESS., OVERVIEW AND COMPILATION OF U.S. TRADE STATUTES 80-82 (Comm. Print 1993).

23. 54 Fed. Reg. 26,136 (1989) (initiating the investigation and request for public comment); see also OVERVIEW AND COMPILATION OF U.S. TRADE STATUTES, *supra* note 22, at 81.

24. See sources cited *supra* note 23.

25. 55 Fed. Reg. 25,761 (1990).

satellites and agreed that the "procurement of all satellites, other than R&D satellites and R&D payloads on non-R&D satellites, by the government of Japan or any entity whose satellite procurement procedures are subject to direct or indirect government control, including NTT and NHK (Nippon Hōsō Kyōkai), will be conducted in accordance with the new satellite procurement procedures." To avoid creating a loophole that could undermine the entire agreement, the drafters defined "R&D satellites and payloads" as "those designed and used entirely or almost entirely for the purpose of in-space development and/or validation of technologies new to either country, and/or non-commercial scientific research," and provided that the "classification of satellites as R&D or non-R&D will also be transparent, and will be subject to bilateral consultations where questions arise."²⁶

IV. THE RESULTS: DETARGETING SPACE

While high technology agreements between the U.S. and Japan are notoriously ineffective,²⁷ this one appears to have worked.²⁸ Measuring the dollar value of trade stemming from this agreement is easier than with most trade agreements. As there was no procurement of foreign satellites prior to the agreement, all subsequent procurements can be credited to the accord. As of June 1993 that amounts to \$670 million.²⁹

Ironically, more than a half billion dollars in additional trade, even in a high value-added sector like satellite procurement, may actually be among the more trivial results of the agreement. Far more important is that a complex and integrated market-domination strategy has been frustrated and has been re-

26. *Id.*

27. A satirical press release in the popular *Shoe* comic strip captures the standard cynics' view of such efforts: "The tough trade talks between Japan and the U.S. turned out much better than expected . . . as a total agreement was reached. They pretended to agree with our demands, and we pretended to believe them." Jeff MacNelly, *Shoe*, TRIB. MEDIA SERVICES, printed in L.A. TIMES, May 2, 1990, at E4.

28. See *Renewing Super 301*, supra note 13, at 9 (statement by U.S. Trade Representative Mickey Kantor characterizing the agreement as a success). Normally such statements should be taken with several grains of salt since Trade Representatives tend to regard their work as successful, but several factors suggest that Ambassador Kantor, should be taken seriously here. First, he was praising the work of a prior administration of a different party. Second, in the same testimony, he argued against renewing Super 301 authority. Thus, his praise of the Japanese satellite agreement would seem sincere. And Senator Baucus—a frequent critic of insufficiently aggressive trade action—seems to agree. See *Baucus Calls for Sectoral Talks to Resolve Japan Trade Issues*, Int'l Trade Rep. (BNA), Mar. 24, 1993 (quoting Senator Baucus as saying about satellite Super 301 action that "We made them a priority and we got results."). In addition, the author's discussions with other government officials and with members of the industry have universally revealed that the agreement is regarded as a success.

29. *Renewing Super 301*, supra note 13, at 38.

placed by market-based competition. Japan's discriminatory procurement regime forced U.S. firms to enter the Japanese market as subcontractors, if they were able to enter the market at all, under circumstances in which their technology was far more available to their Japanese "partners" than if they were bidding on the satellite procurements themselves. The agreement drastically limited this forced technology-transfer mechanism, making it far more difficult for Japanese companies to acquire crucial technology from foreigners at artificially low costs.

Finally, with the effort to build up a domestic satellite manufacturing industry forced back to market principles, the entire integrated "long range strategy" for Japanese market dominance in the space field—for which dominance of the satellite sector was crucial³⁰—was set back. So far there have been no significant Japanese government efforts to get around the agreement.³¹

The success of the agreement therefore means that U.S. satellite manufacturers have not only gained access to the Japanese market on reasonable terms, but have also been spared competition in other markets by Japanese firms who benefit from the indirect but powerful subsidy of a large and protected home market. As U.S. steel, automobile, and semiconductor producers can attest, that makes an enormous difference. Because of the agreement, Japanese companies remain free to compete in the market on equal terms but cannot benefit from a system in which the Japanese government—and Japanese consumers—in effect pay out large amounts of money to neutralize foreign competitors' comparative advantage.

The agreement also promises substantial benefits for other up- and downstream industries in the space sector. As observed above, the ban on procurement of foreign satellites was part of a larger, integrated strategy that also included launch services (with the H-2 rocket)³² and communications services. The ultimate goal was to dominate all three sectors, but control of the communications satellite market was an essential element of the

30. As Teruo Masuda, a senior section officer of C. Itoh's information systems and technology department was quoted as saying, "[to be successful in space] we have to have hegemony in satellite telecommunications." See REYNOLDS & MERGES, *OUTER SPACE*, *supra* note 5, at 237.

31. See *Japanese Government Says It Won't Pursue Commercial Satellite Consortium with MPT*, 8 Int'l Trade Rep. (BNA) 1406 (Sept. 25, 1991) (noting that concerns about violating U.S.-Japan satellite agreement caused Japanese government to reject a proposal to create a subsidized communications satellite development consortium made up of Japan's telecommunications ministry and three communications companies).

32. See *supra* notes 10-12 and accompanying text; see also Reynolds & Merges, *Toward an Industrial Policy for Outer Space*, *supra* note 5, at 17-27; Elizabeth Corcoran & Tim Beardsley, *The New Space Race*, *SCI. AM.*, July 1990, at 72.

overall approach,³³ and it was the one in which Japanese companies were most able to compete at the outset. By attacking a key element of this strategy, the U.S. Trade Representative was able to neutralize the entire approach, producing substantial spill-over benefits to other important space industry sectors such as communications and launch services.³⁴

V. WHAT CAN BE LEARNED FROM THE SATELLITE EXAMPLE

Several lessons can be drawn from the success of the Super 301 action against Japan in the satellite procurement industry. The most basic lesson is that it is possible in some instances to respond to foreign strategic trade approaches with industry-specific remedies supplied by U.S. trade law. The hard part, of course, is identifying important industry sectors and then pursuing effective negotiations.

33. See REYNOLDS & MERGES, OUTER SPACE, *supra* note 5. See also *Renewing Super 301*, *supra* note 13, at 76-77:

Evidence to date suggests that [the Japanese] are designing their vehicles to be highly competitive in the world launch services market, with an eye toward capturing as large a share as possible. Experience suggests that if they are successful at dominating the launch services field, they will ultimately tie low-cost (perhaps "dumped") launches to purchases of satellite hardware, thus threatening the U.S. position in that field as well.

Essential to this strategy is the development of a protected domestic satellite industry. Satellites, especially communications satellites, play a key role in the overall structure of space-related industries. At the moment, communications satellites are by far the largest and most profitable sector of the space industry; they provide the largest source of customers for commercial launch services, and they are a crucial input for the telecommunications industry. Because of their ability to generate cash, and their importance (in both a marketing and a technological sense) to both upstream and downstream sectors, communications satellites represent a "strategic" market sector; dominance in the communications satellite sector is thus a necessary element of dominance in the related space and telecommunications industries. Achieving such dominance without a protected home market would be extremely difficult. . . . By engaging in discriminatory purchasing, the Japanese government is in effect paying out money to neutralize the natural competitive advantages developed by U.S. companies as a result of investment and experience over several decades. This practice, since it involves deliberate manipulation of markets in order to deprive U.S. companies of fairly-won positions, should certainly be regarded as unreasonable and discriminatory.

34. *Renewing Super 301*, *supra* note 13, at 79 & n.13:

[P]recisely because satellites represent a strategic sector, targeting restrictive Japanese practices in this regard is likely to have substantial benefits that affect the entire commercial space field. . . . The product-specific nature of U.S. trade law and procedure tends to make it difficult to counter strategic trade policies on the part of foreign nations, but the particular importance of the satellite sector vitiates this problem in this particular case.

This leads to a second lesson. In order to deal successfully with foreign strategic trade policies, U.S. trade authorities must be more than simply lawyer-generalists who understand international trade law. They also must know a good deal about the industries involved. Trade authorities must be capable of effectively dealing with the representatives of the particular industries, as well as possess some degree of in-house expertise. Outside advice may be helpful, but it is not enough.

A third lesson is that, wherever possible, U.S. trade policy should work to promote values other than simply aim for "increases" in trade. In the field of telecommunications, for example, U.S. industries would benefit from government support of open international communications. But even if they did not so benefit directly, the world would be better off through freer communication.³⁵

Despite all of their problems, U.S. space industries are the world's low-cost, high-quality producers in most areas and would probably benefit from market-based competition worldwide. But even if U.S. companies do not benefit from such competition, the world will. The U.S. people, through their government, have decided that the development and settlement of outer space is a major long-term national goal, one that has been endorsed by both Congress³⁶ and the executive branch.³⁷

The biggest problem facing ambitious plans for space development, however, is cost. Presently the costs are just too high to fully utilize space on a regular basis. In part, this is because until recently nearly all space activity was undertaken as some sort of governmental program, and government programs are notorious not only for failing to reduce costs but for failing to cap cost over-

35. Reynolds, *supra* note 1, at 598-601 (1991) (stating that even if specific U.S. industries did not so benefit, the U.S. and the world would be positively affected since freer communication is a good in itself).

36. This was done in The Space Settlements Act, Pub. L. 100-685, 102 Stat. 4094 (codified at 42 U.S.C.A. 2451 notes a-b (1993)). This Act explicitly endorsed the "extension of life beyond Earth's atmosphere, leading ultimately to the establishment of space settlements," and provided for biannual reports by NASA regarding its efforts to promote this goal.

37. This goal was endorsed by President Clinton during the campaign, in his space position paper and in answers to an Associated Press questionnaire. Executive Branch support for this goal, like that in Congress, has been bipartisan. President Bush endorsed the same goal in his speech of July 20, 1989, and former President Ronald Reagan similarly proclaimed that "America must lead the effort to colonize space, because in the next century leadership on Earth will come to the nation that shows the greatest leadership in space." *Quoted in* Lou Cannon, *President Salutes Discovery, Bush*, WASH. POST, Oct. 15, 1988, at A4. And, though it is not entirely relevant here, at least one representative of the judicial branch has endorsed the goal of space colonization. See Justice William J. Brennan, Jr., *Space Colonization and the Law*, 3 HARV. J.L. & TECH. 7, 12 (1990) (agreeing with Reagan statement, *supra*).

runs. Market forces, on the other hand, because of the incentives provided by competitive pressures and the profit motive, are rather effective at lowering costs and increasing capabilities.³⁸ Thus, even if U.S. companies compare poorly in global market-based competition, the nation—and the world—as a whole will benefit from the cost-lowering and technology-developing tendencies of truly market-based competition.³⁹

By contrast, if the world market for space goods and services were to look like the steel sector—one that nations enter for “strategic” or military reasons, not market reasons, and one that is characterized by chronic oversupply, rampant government subsidization and cartels, demand allocation, and relatively stagnant technology⁴⁰—we would see little hope of lowering costs sufficiently to create a truly space-faring civilization. Given its unique position in terms of technological development and market power at this stage in the development of space industries, the U.S. has the opportunity to play a major role in promoting true international competition in this field. If it is successful in doing so, it will benefit even if others ultimately capture most of the market.

VI. CONCLUSION

None of the discussion above is intended to suggest that Japanese entry into the space industry is undesirable, whether for the U.S. or the world. Genuine competition in the field is to be desired as it will drive costs down and promote more capable and less expensive technologies—something that the space field, which has suffered from the debilitating effects of the government procurement system in both nations in the past, could certainly use. In fact, for such competition to exist, procurement must be based on those qualities that competition is supposed to promote, such as low price and high reliability and not the nationality of the supplier. If this is to be the case, mercantilist strategies like that attempted by the Japanese in this case must be discouraged.

38. Examples of this axiom of economics abound. Perhaps the example most immediately related to the production of this very article would be word processing and desk-top publishing on a personal computer. Such computers would have qualified as “supercomputers” not all that long ago. As a result primarily of competitive pressures, however, the “supercomputers” of two or three decades ago are mass produced and commonly used for a variety of applications in millions of homes today.

39. For a much lengthier discussion of this effect, and its importance, see *Renewing Super 301*, *supra* note 13, at 47-50, 58-61.

40. See generally HOWELL, *supra* note 14.

In light of their well-established role as producers of high quality goods at low cost, it is likely that many Japanese companies will have a great deal to contribute in this area. The satellite Super 301 proceeding may simply help to ensure that Japanese entry will accord with market, rather than mercantilist, principles.

By way of conclusion, two caveats are in order. First, the Super 301 provision is appropriately regarded as a blunt instrument, opening up international markets through threats of unilateral retaliation. Blunt instruments may often be useful instruments, but the U.S. should be careful to ensure that a blunt instrument, deftly applied, does not become a blunt instrument bluntly applied. Unilateral trade statutes require skill and sensitivity in their application, or they may easily make things worse. The Trade Representative's office has made it clear with this case that such skill and sensitivity are not out of reach, but they are not to be taken for granted either. Where the U.S. cannot act with this degree of discernment, it should not act at all.

Second, the U.S. should not congratulate itself too hastily. As it struggles for free trade in the space arena, with market forces operating as described above, there is much that the U.S. must do to put its own house in order. The U.S. must not only be a leader in promoting free trade for others; it must promote free trade among its own industries as well. This means in particular that the U.S. procurement system must be reformed and that NASA and the Defense Department must operate their space programs in ways that are more compatible with commercial space.⁴¹ Unfortunately, the U.S. does not have a domestic equivalent of the United States Trade Representative, armed with statutes, to enforce competitive reforms at home.

At any rate, the Japanese satellite procurement dispute holds important lessons. Those lessons are valuable not only for those interested in space industries, but for all interested in international trade in general. Hopefully, we will be wise enough to learn from them.

41. For a discussion of this issue, and some proposed legislation that addresses it, see Glenn H. Reynolds, *Legislative Comment: The Omnibus Space Commercialization Act* (forthcoming in *RUTGERS COMPUTER & TECH. L.J.*, Spring 1994).