The Renewed Trade War Over Japanese Chips

Neither the United States nor Japan seems ready to yield any ground in the trade talks on electronics that have plodded along since last year. However, the U.S. Commerce Department recently took a swipe at Japanese chip imports that could start things moving.

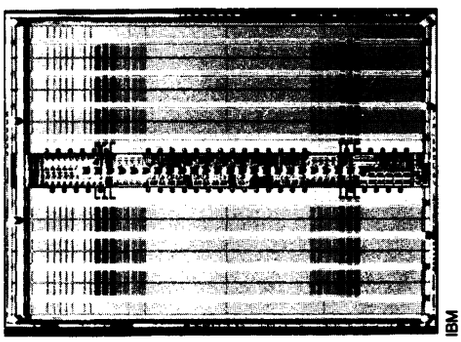
In two rulings on 11 and 13 March, the Commerce Department took action against Japanese companies that have been accused of "dumping" their chips in America at unfair prices. Three types of chips are involved, all state-of-the-art products intended for the mass market. One is known as an EPROM (erasable, programmable, read-only memory), and the other two are dynamic RAM (random access memory) chips of very high density, capable of storing 256,000 and 1,000,000 bits of information each. All have become standard computer parts, except for the million-bit or megabit chip, which is just now being introduced.

This is an aggressive move by the Administration, all the more so because it represents a shift from its adamant free-trade policy. It is unusual also because Commerce wishes to stop not just past abuses but future ones as well. For example, the antidumping investigation on dynamic RAM chips covered an ultrahigh-density device (the 4-megabit chip) that has not yet appeared in the market. Demonstrating unfair pricing in this case would be a neat legal trick.

Beyond this, the government seems to have signaled that it is ready to use these narrow dumping cases as a club to win concessions from Japan in broader talks that are going on under Section 301 of the Trade Act. The talks stem from a complaint filed last June by the U.S. semiconductor manufacturers, who claim they are unfairly prevented from making large sales inside Japan. U.S. sales never go much higher than 10 percent.

As a result of the antidumping actions, the Japanese now must put up deposits as they import their latest chips into the United States. The money will be held pending a final ruling on whether or not a duty should be imposed, due by 27 May. The effect is to raise the price of imports immediately.

This is the latest in a series of skirmishes that have left unchanged a stalemate that developed in 1985, following early pleadings filed by U.S. companies. Last fall, Commerce gave a preliminary antidumping ruling against Japanese low-density (64,000 bit) dynamic RAM chips. Then, in mid-December, the Japanese government proposed an overall settlement in the context of the Section 301 talks. The Administration rejected it as inadequate and "stepped up the ante," one laywer says, by filing an unusual government-initiated case against high-density Japanese chips. In January, the U.S. government made a broad counteroffer to the Japanese, aimed at increasing U.S. chip sales in Japan. Japan rejected it. Now Commerce has begun to impose penalties on individual Japanese products.



IBM

A megabit memory chip.

The penalties are applied like taxes but are called a deposit. The amount represents the difference between what the government thinks the Japanese firms should charge for a chip and what they actually do charge. The highest penalty in the EPROM case will be imposed on Nippon Electric Company (188 percent). It is steep, Commerce says, because NEC did not give U.S. investigators any data to back up its cost claims. In cases like this, Commerce uses a "constructed cost" to guess what NEC spends, including an arbitrary amount for research, overhead, and 8 percent for profit.

The immediate effect will be to take the sting out of foreign competition (*Science*, 22 November 1985, p. 917). The price of 256K EPROM's dropped last year from $17 to $4 each, partly because of a market slump but largely because of Japanese dumping, according to the U.S. companies.

William Tanaka, a lawyer for the Electronics Industries Association of Japan, predicts that with the dumping penalty in effect, U.S. companies will raise prices. He points out that one of the largest U.S. chip companies, Intel, raised its price for EPROM's by 25 percent on 5 March. Tanaka says the dumping action and the price rise "are not unrelated." An Intel spokesperson says there is no link, but that the increase represents a return to "more mature marketing practices" and stronger demand. ■ ELIOT MARSHALL

Bitter Residue from Archeology Congress

The row over South African participation in the World Archaeological Congress, due to be held in Southampton, England, in September this year, is beginning to subside. The upshot of the affair, however, is far from ideal: there will now be two congresses instead of one, and there is a considerable residue of bitterness among the scholars involved.

A crisis arose last fall when the British committee for the congress, under threat of financial and organizational disruption from local and national groups, refused participation to researchers working in South Africa. A large number of European and American researchers protested. As a result, the executive committee of the International Union of Prehistoric and Protohistoric Science (IUPPS), under whose aegis the congress is held once every 5 years, withdrew its imprimatur from the British gathering and accepted an invitation to hold the official congress in Mainz, West Germany, also in September 1986.

The British committee, meanwhile, decided to continue with its planned conference, even though it would no longer be the official 11th World Archaeological Congress. Four of the six members of the committee, including its chairman, resigned because they did not wish to proceed without official endorsement from the IUPPS. The fact that the meeting is to go ahead as planned is due to the tremendous commitment to it by the committee's secretary, Peter Ucko, professor of archeology at Southampton University.

Nine new members have been appointed to the British committee, whose chairman is now Michael Day, professor of anatomy at St. Thomas's Medical School, London.

The date for the official congress to be held in Mainz has now been changed to September 1987, so that organizers would have sufficient time for adequate preparations. The new date also obviates invidious decisions scholars would otherwise have had to make in choosing between the two gatherings.

Official funding for American scholars planning to attend the British meeting has all but dried up. A lively debate on the subject is expected at the annual meeting of the Society of American Archeologists, to be held in New Orleans in April. Meanwhile, plans for an unrestricted international gathering of archeologists to be held in Berkeley, also in April, are continuing without inci-

dent. This meeting, which is to honor Desmond Clark, one of this country's most distinguished archeologists, is to be attended by at least half a dozen South African participants. At least one member of the newly constituted British committee is planning to take part in the Berkeley meeting, apparently unconcerned by the inconsistency of his position. ■ ROGER LEWIN

Academy Study Dispels Doubt on Acid Rain

If there were any doubt that sulfur emissions create acid rain, and that acid rain reduces visibility, causes fish to perish and lakes to acidify, then a recent report on acid rain by the National Academy of Sciences should dispel it. The 506-page report,* after a detailed review of mountains of data, concludes that sulfur emissions cause plenty of environmental problems.

The report is expected to play a role in a meeting scheduled on 18 March (as *Science* goes to press) between President Reagan and Canadian Prime Minister Brian Mulroney. Reagan may adopt a proposal put forth by his personal envoy Drew Lewis to spend more money in developing clean coal technology (*Science*, 24 January, p. 333).

While previous studies have provided snapshots of one aspect or another of acid rain and its effects, the Academy report is a comprehensive and meticulous picture of the problem in the eastern United States. The 14-member panel, which issued the report, did not make any recommendations nor did it analyze the specific role of nearby or distant coal-burning plants.

"The connection between acid rain and environmental damage is real, but it is more variable and complex than many people have supposed," said James H. Gibson, chairman of the committee that issued the report and head of the National Resources Ecology Laboratory at Colorado State University.

The committee found the strongest evidence of acid rain damage in the Adirondacks. Relying partly on a new way to measure the past acidity of lakes, the committee concluded that the acidity of some lakes normally changed 1 *p*H unit over hundreds or thousands of years. But some lakes in New York have changed this much in 20 to 40 years because of acid rain. This was partly confirmed by a new method développed by the committee to measure lake acidity in which diatoms from sediment cores are analyzed. The acidity is calculated according to the type and number of diatoms in a sediment layer.

The scientists also noted that acidity changes among lakes in the same region may be different, possibly due to the soil and watershed particular to each lake.

An issue left unresolved by the report is a link between acid rain and forests. Even though red spruce in the northeastern states have been dying at high rates, definitive evidence of the cause is not available, the committee said. Air pollution is likely to be one of several factors at work. ■

MARJORIE SUN

Acid Deposition: Long Term Trends (National Academy Press, 1986, 2101 Constitution Avenue, NW, Washington, DC 20418).

Institute of Medicine Launches Assessment of AIDS Programs

The National Academy of Sciences and the Institute of Medicine have begun a major assessment of national strategies to combat acquired immune deficiency syndrome (AIDS). The study, which is being funded by a consortium of foundations, has been put on a fast track. A report is due in 6 months.

A stellar cast has been assembled to conduct the study. It will be carried out by two panels and the effort will be coordinated by a steering committee jointly chaired by David Baltimore of the Whitehead Institute and Massachusetts Institute of Technology and Sheldon M. Wolff of Tufts University and the New England Medical Center.

One panel, chaired by Baltimore, will examine national research efforts, looking in particular at whether the resources being devoted to AIDS research are adequate and whether sufficient numbers of researchers are being drawn into the field. According to Baltimore, the panel will also look at possible barriers to participation by private industry in areas such as vaccine development and drug therapy.

The second panel, chaired by Wolff, will look at the public health aspects of AIDS, including evidence on the spread of the disease in industrialized and developing countries, the cost and effectiveness of various treatment programs, and the impact of education and public health efforts.

The steering committee will report directly to the councils of the Academy and the Institute of Medicine, which both approved the effort. The study was sparked in part by recommendations made during a day-long meeting on AIDS sponsored last fall by the institute. ■ COLIN NORMAN

Nuclear Reprocessing and "the World's Most Radioactive Sea"

A committee of British members of Parliament has called for a complete reappraisal of the government's plans for the expansion of its nuclear fuel reprocessing plant at Sellafield, Cumbria, in the light of what it describes as "changed circumstances" facing the nuclear industry since the decision to expand was made in the mid-1970's.

It also says that there should be a significant increase in the funds allocated by the government to research on the disposal of low-level radioactive waste, an area in which it says Britain is far behind countries such as France, West Germany, and Canada.

The report, prepared by the all-party environment committee of the House of Commons, does not recommend, as earlier drafts were reported to have done, that British Nuclear Fuels Limited (BNFL) abandon its plans for a $1.9-billion thermal oxide reprocessing plant at Sellafield. But it concludes that the Irish Sea, which has been receiving discharges from the reprocessing activities on the site since the early 1950's, is now "the most radioactive sea in the world," and it also criticizes the "excessive secrecy" of the British nuclear industry.

Both conclusions have been a considerable embarrassment to the British government. They come at a time when the report of the inquiry held at Sizewell on the government's plans to build a new generation of nuclear power stations, based on the U.S.–designed pressurized water reactor, is in the final stages of preparation.

BNFL has already been heavily criticized in recent weeks over a series of leaks at the Sellafield plant that have resulted in the suspected contamination with low levels of radiation of almost 20 technicians and maintenance workers.

The European Parliament in Luxembourg has passed a resolution saying that the whole plant should be closed down until the safety problems have been solved. The parliamentary report, which is likely to carry greater weight with the government, does not go quite that far, pointing out that so far the leaks have caused very little radiation and have not presented any danger to human life.

The committee's chairman, Hugh Rossi, added that if a detailed inquiry into the financial prospects for reprocessing at Sellafield suggested that the facility should be shut down, proposals should also be abandoned for building a reprocessing plant for spent fuel from fast breeder reactors currently being proposed for Dounreay in the north of Scotland. ■ DAVID DICKSON