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KOREA

For the first time, the U.S. Overseas Private Investment Corporation (OPIC) has invoked sanctions against a major U.S. ally and trading partner. Obligated by law to deny new assistance in countries violating internationally recognized worker' rights, OPIC has heretofore focused its displeasure on "Communist" nations and other regimes already out of favor with the U.S. Now OPIC benefits are no longer available in South Korea.

OPIC provides financing, insurance, and loan guarantees to U.S. companies investing in countries, primarily in the Third World, where private sector financial and insurance companies are reluctant to provide backing because of political or economic instability. It is one of many U.S. programs that have created a political-economic climate supporting export-led industrialization, to the detriment of large numbers of workers in both the U.S. and in the countries which ship manufactured goods to the U.S.

President Owen Bieber of the United Auto Workers, which filed a complaint leading to the OPIC action, said, "This decision sends a strong message to the Roh Tae Woo government that its outrageous attacks on trade unions can have a negative effect on trade and investment activity for Korea." (AFL-CIO International *Bulletin*, July-August, 1991)

In issuing its order, OPIC cited the Roh government's 1989 veto of labor rights legislation, its regulations designed to restrict workers bargaining rights, and the imprisonment of large numbers of union activists on "questionable legal grounds."

Meanwhile, the South Korean government, recently admitted to the United Nations, plans to seek membership in the UN-affiliated International Labor Organization (ILO). However, it does not plan to ratify the ILO's human rights conventions, which conflict with South Korean law. Unfortunately, other prominent ILO members, including the United States, have not ratified those conventions.

The International Labor Right Education and Research Fund (ILRERF), which also petitioned for the OPIC denial, reports that South Korean attacks on workers and unions have grown more intense since OPIC announced its sanction: "It would appear from these developments that the government strategy is to destroy completely the independent trade union movement prior to bidding for entry to the ILO." (*Korea Labor Rights Monitor*, ILRERF, Box 74, 100 Maryland Ave., NE, Washington, DC 20002)

ILRERF reports that more labor leaders have been arrested in recent months than at any time since Roh Tae Woo took office. Work-related deaths have risen to an all-time high. The Korean press has discovered an employment blacklist containing the names of 8,000 labor and other democratic activists. The Labor Ministry threatened to use police against striking workers at Hyundai Heavy Industries, a stronghold of labor militancy. And Daewoo Shipbuilding directly intervened in union elections in an attempt install the company personnel director as union head.

Ironically, South Korea's industrial magnates are reportedly looking north for a new supply of exploitable labor. With the end of the Cold War, the two Koreas appear to be entering an era of *rapprochement*. While outright reunification still seems distant, economic cooperation between resource-rich North Korea and the manufacturing powerhouse in the South could grow rapidly.

Business Week (October 14, 1991) suggests that North Korea "may become a low-wage workshop for South Korean industry. The pattern for such an arrangement has been set elsewhere in Asia. China's Guangdong province is the industrial hinterland for Hong Kong, and Fujian province is rapidly becoming an economic satellite of Taiwan."

Business Week says that North Korean workers are well disciplined, but outside contact has been so limited that it is difficult to say how North Korean workers will choose to relate to the dynamic political events in the south.

DUMPING

As expected, the International Trade Commission (ITC) has clamped anti-dumping duties on flat-panel displays imported into the United States. (See *Global Electronics* Nos. 107 and 109.) The ITC imposed a whopping 63% charge on imported active-matrix liquid crystal displays, an advanced screen not manufactured in the U.S. ITC acted at the behest of a group of small American display manufacturers not currently using active-matrix technology.

As a result, computer firms that assemble Japanese-made active-matrix displays into laptop computers are shifting production from the United States. Dolch Computer Systems, a German-owned firm in Silicon Valley, plans to build portable machines in Germany, while Toshiba will build laptops in Japan instead of Irvine, in southern California.

Hosiden, the only Japanese active-matrix screen supplier that does not also make computers, has reportedly stopped shipping to the United States, but its major customer, Apple Computer, has not yet announced where it will produce future laptops. (*San Jose Mercury News*, August 17 and September 25, 1991, and *Far Eastern Economic Review*, August 15, 1991)

Meanwhile, the definitions of American anti-dumping laws may be put to the test in a case involving typewriters. Japanese-owned Brother Industries employs 400 Americans in Bartlett, Tennessee. They make typewriters that compete with machines produced by U.S.-owned Smith Corona in Singapore. Brother has filed a complaint against Smith Corona, charging it is selling foreign-made typewriters below fair-market value.

Smith Corona does not use Brother's foreign ownership to defend its position, however. It argues, "All that Brother does in Tennessee is insert some imported parts in a board and solder it." In other industries though—television production, for example—final assembly still qualifies as production. (*New York Times*, printed in *San Francisco Chronicle*, August 12, 1991)

SEMATECH

Sematech, the Defense Department-backed consortium of large chip manufacturers, may not get the encore it seeks. In a column ominously titled "Curtains for a High-Tech Consortium," *Business Week* (October 14, 1991) says that Sematech has fallen short of its goal of "reversing the competitive decline" of the U.S.-owned

semiconductor industry: "Funding for the venture expires next September. Consortium partners are preparing an ambitious plan for Sematech II, which would stress research into computer-aided manufacturing and other software projects. But Pentagon budget woes and ideological backlash from the Bush Administration could jeopardize Sematech's plans."

Furthermore, at least one of its fourteen member companies plans to drop out, and the Defense Advanced Research Projects Agency (DARPA) appears to have downgraded its emphasis on the project.

Intel lobbyist Michael Maibach is hopeful that the Federal government will keep sending more than \$100 million a year to the Austin-based consortium. He told *Business Week*, "If 14 companies are willing to send their talent, treasure, and technology to Austin, then Washington [ought to be] comfortable matching those funds."

In fact the 14 firms, which count personnel transfers as part of their contribution to Sematech, don't really supply fifty percent of Sematech's budget. At least two member companies charge a portion of their Sematech fees—that is, the "industry contribution" matched by DARPA—to the Federal government as lawful overhead on Defense and other contracts. (US GAO, "Federal Research: Assessment of the Financial Audit for SEMATECH's Activities in 1989," April, 1981.)

Finally, Sematech has broken off discussions of the consortium's labor and environmental policies with the Campaign for Responsible Technology (CRT). With Sematech standing on such a fragile stage, CRT's backers may be well situated to dump the consortium, or support it in a more palatable, restructured form.

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GERMAN INNOVATION CENTERS

Europe has no cradle of high-tech enterprise comparable to Silicon Valley or even the Route 128 complex in Massachusetts, but many economic planners there believe that the promotion of high-tech startups is crucial to the generation of new jobs and industrial innovation. In former West Germany, the focus of such policies has been the creation of Innovation Centers.

Innovation Centers are incubator complexes that provide space, administrative services, and management consulting to new technology-based firms (NTBF's). They are sponsored by local and regional governments, universities, and private investors.

Hanover University geographer Rolf Sternberg conducted a survey of 31 of western Germany's 70 innovation centers. He found that the availability of the innovation center played an important, but not exclusive role, in the location decisions of surveyed NTBF's. Sternberg concluded, "The location within an [innovation center] will be neither a necessary nor a sufficient precondition for the success of a NTBF...if they are complemented and supported by simultaneous measures of economic policy they may, over the medium term, become a useful instrument for the promotion of new technology based firms..." ("The Impact of Innovation Centres on Small Technology-Based Firms: The Example of the Federal Republic of Germany," *Small Business Economics*, 2: 1990.)

DESPITE "EMIGRATION," VALLEY REMAINS STRONG

Silicon Valley remains the number one address in high technology, but not every high-tech venture or branch plant wants to set up shop here. In fact, Gary Burke, head of the Santa Clara County Manufacturing Group, says, "In the past six to eight months, we've lost 12,000 to 14,000 (expansion) jobs out of state that should have been here." That is, Silicon Valley firms, as they grow, often expand elsewhere. (*San Jose Business Journal*, September 23, 1991)

In fact, Silicon Valley is suffering from the computer industry recession, but start-ups and large out-of-state and out-of-country firms are still hiring. While Apple the Applied Materials and even start-up Hal Computer Systems are planning operations in Austin, Texas, even some home-

grown high-tech firms are expanding in Silicon Valley.

Raychem, for example, has just opened a high-volume plant to produce Poly-Switch circuit protection devices in Menlo Park. Just across the county line in San Mateo County, Menlo Park is by every other measure a Silicon Valley core area. The plant is expected to employ 500 people.

San Jose Mercury News Business Editor James Mitchell explained (September 25, 1991), "For most companies it's too expensive to do pure manufacturing here. But this is an excellent place to create new products and develop ways to make them. At Raychem, 'We seed and incubate here and nurture new technologies into being,' [Raychem President Robert] Saldich said. Once a product and the way to make it are established, the company can create volume factories in other parts of the world."

Raychem plans eventually to produce the devices elsewhere "to reduce costs and to be closer to customers." It already does Poly-Switch final assembly at a Japanese plant.

Unlike many other Silicon Valley employers, Raychem's Poly-Switch plant requires a skilled production workforce. "Employees must be computer literate, understand statistical process control, and be able to read instructions... in English." To retrain its workers, Raychem paid a local community college to provide classes, half on company time, at Raychem. While many areas attempting to attract high-tech industry focus on programs designed to hone the skills of technical professionals, Raychem's Saldich said that "the kind of people Raychem likes to hire are 'terribly sensitive' to the quality of education in kindergarten through 12th grade."

IS IBM CHANGING ITS COLOR?

In *Global Electronics* No. 109 we noted IBM's increased proclivity to joint ventures and other strategic alliances, including the now consummated marriage with Apple Computer. Big Blue has since announced two other dramatic changes in its corporate behavior. First, it disclosed plans to sell chips. Long a major *producer* of integrated circuits, IBM has always consumed its devices in-house. Second, the company has eliminated its "jobs-for-life" policy. Based on evaluation by supervisors, thousands of IBM employees will be laid off to reduce the workforce and eliminate "deadwood." (*San Jose Mercury News*, September, 1991, and October 8, 1991)

LOOSER EXPORT CONTROLS

The quantum reduction in the Soviet military threat has eliminated the major argument for strict controls on the export of computers and other high-tech equipment by U.S.-based companies. At the beginning of September, the U.S. Commerce Department implemented a new, shorter list of export controls, approved by the U.S. and its allies in COCOM, the Coordinating Committee for Multilateral Export Controls. U.S. computer manufacturing welcomed the event, anticipating large sales increases.

Bad habits die slowly, however. It turns out that the Defense Department plans to propose controls on the export of inexpensive, but powerful workstations based upon RISC (reduced instruction set computing) microprocessors. Reportedly, policy-makers are concerned that the machines might be used by terrorists to design sophisticated weapons. The Pentagon wants to build into the machines controls that limit their use to approved software.

This approach is ludicrous on many grounds. RISC workstations are widely available. Slower machines can do the same work, just more slowly. Anyone capable of using such machines to design sophisticated weapons is likely capable of defeating system "locks." (*San Jose Mercury News*, September 11, 1991)

Strict controls on workstation exports could severely hurt the U.S. computer industry, since these machines are one of the few bright lights in today's otherwise gloomy global computer market.

MOTOROLA INNOVATES

While many other U.S.-owned high-tech firms shirk from confronting Japanese and European manufacturers in consumer markets, Motorola is actually launching a new venture in a market dominated by foreign interests. It is opening a plant in Buffalo Grove, Illinois to make fluorescent-lighting ballasts.

Though lighting systems are generally not considered "high-tech," the Motorola product reportedly incorporates the latest technology to reduce ballast weight by 75 percent, eliminate flicker, and reduce energy consumption by one third.

Business Week (October 14, 1991) portrays the venture, Motorola Lighting Inc. (MLI), in an unflickering light that would make any corporate culture guru swell with pride. The MLI ballast was designed jointly by teams from engineering, marketing, and manufacturing departments. The product and factory were designed together. Suppliers have been selected and the production line designed to prevent defects. MLI promises a high-level of customer service, not just a glitzy process.

If successful, MLI's careful approach should pay off for Motorola. *Business Week* says, "Roughly 1.5 billion (!) ballasts in the U.S. will be replaced at up to \$40 each over the next decade as they burn out."

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