that "Canada frequently acts in a way that seems altogether contrary to Western interests." For example, the Canadian Armed Forces have been cut from 124,000 troops in 1964 to fewer than 85,000 today. While Canada's ability to defend itself against Soviet aggression continues to ebb, Prime Minister Brian Mulroney recently announced plans to spend nearly \$5 billion (out of the \$9 billion defense budget) on 10 nuclear submarines meant to enforce Canada's claim (disputed by the United States) to sovereignty over the Northwest Passage, a strait in Canada's Arctic north.

Many Canadian government programs are designed to promote a sense of national unity. "Canadian content" laws protect broadcasters and publishers from foreign competition. Uncompetitive government-run industries (such as Petro-Canada, the state-owned oil company) and high

tariff barriers have produced a stagnant economy.

The cure for Canada's economic woes, Casse concludes, is free trade with America. But before that occurs, Canadian officials must discontinue policies that distance Canada from the United States. By working more closely with its southern neighbor, Canada can "become a productive, aggressive, and competitive economic force."

Brazilian Computers

"Brazil's Independent Computer Strategy" by Antonio José J. Botelho, in *Technology Review* (May-June 1987), Mass. Institute of Technology, Building W59, Cambridge, Mass. 02139.

Protectionism, most economists would argue, hurts consumers by forcing them to pay higher prices for inferior goods, by imposing tariffs on foreign goods in order to nurture uncompetitive domestic industries. In Brazil, import restrictions have allowed the fledgling computer industry to grow

in the face of stiff foreign competition.

During the mid-1970s, Brazilian computer firms controlled five percent of a \$700 million domestic market. By 1986, 270 such computer firms controlled 55 percent of a \$2.7 billion home market in minicomputers, microcomputers, and peripheral accessories. Botelho, a doctoral candidate in political science at the Massachusetts Institute of Technology, argues that although the Brazilian computer market is small by American standards, with a continuation of its current 35 percent annual growth rate, it could become "one of the largest markets in the world."

The Brazilian government's interest in computers began during the early 1970s, when attempts were made to set up joint ventures between foreign and Brazilian firms to build minicomputers. Most failed. U.S. firms claimed that Brazilian law restricted their royalties. In 1976, Brazil established the Commission for the Coordination of Electronic Activities (CAPRE), with a "market-reserve" strategy; imports would be restricted, but Brazilian firms could buy licenses to foreign computer technology.

CAPRE's decision allowed the Brazilian microcomputer industry to thrive. Because microcomputers are relatively easy to copy, licensed Brazilian manufacturers readily cloned IBM-PCs, Apple-IIs, and Tandy TRS-80s. While a Brazilian Apple-II clone in 1982 cost 2.2 times as much as the original model, by 1984 the Brazilian copy had become eight percent cheaper than the original.

OTHER NATIONS

Brazilian computer exports have risen rapidly, doubling in 1985 to \$11 million, and shipments abroad continue to grow. The firm of Racimec, for example, has contracted to sell \$20 million worth of lottery-processing equipment to other countries.

Botelho believes that Brazilian protectionist policies would not work in other nations. In Mexico, for example, import controls could not stop the smuggling that accounts for two-thirds of the microcomputers used there. But in Brazil, import controls should allow the computer industry to grow rapidly for years to come.

Japan's Choices

"Japan's Choices" by Peter F. Drucker, in Foreign Affairs (Summer 1987), 58 East 68th St., New York, N.Y. 10021.

Low wages and high productivity have allowed Japan's economy to grow for over 30 years. But the export boom that has fueled that growth is sputtering. Because labor in South Korea, Brazil, and Mexico is so inexpensive, these countries can now produce more cheaply goods of a quality equal to that of their Japanese rivals.

Japan, says Drucker, professor of social science and management at the Claremont Graduate School, must decide whether such traditional policies as lifetime employment and "administrative guidance" of industry by the state are economically viable. "The choices Japan makes," he argues, "will determine how the world's youngest economic great power ... integrates itself into the world economy."

Japanese corporations have responded to foreign competition by becoming multinational. Two percent of all goods sold by Japanese companies in 1983 were produced overseas; the figure rose to five percent in 1986, and may reach 20 percent by the early 1990s. One-third of all foreign-employed workers in Tijuana, Mexico, for example, work in Japaneseowned factories.

But the jobs created by subsidiaries abroad do not give new opportunities to Japan's blue-collar workers. Unemployment in Japan may continue to rise as domestic industries (most notably the Japanese national railroads and automobile-makers that have built plants in the U.S. and Spain) continue to reduce their payrolls. The official unemployment rate in Japan of three percent, Drucker argues, is a "statistical fiction." Japanese businesses prefer mandatory early retirement (with up to a two-thirds reduction in wages) to layoffs. Were these "retired" workers counted as unemployed, the actual unemployment rate would be between 7.5 and 8 percent—higher than in the U.S.

Japan, Drucker concludes, still thinks of itself as kazoku—"a family" or clan, separate from, but equal to the West. But the rise of the Japanese multinational corporation evokes *haragai* (a "gut feeling") that domestic social harmony will be destroyed by alien Western values. While many Japanese accept the economic rationale for diversifying overseas, they have yet to accept cultural integration with the West. Japan's decision, Drucker says, will determine not only "the meaning of Japan" but also, to some degree, "the meaning of the West itself."