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Global Economic Competition

Most of us have been steeped in widespread faith in U.S. technological superiority. But we face disturbing evidence that we are doing poorly in global economic competition. Last year, our annual merchandise trade deficit was \$148 billion. The figures were proportionately worse for January 1986, when the deficit was \$16.5 billion. The United States is comparatively rich in natural resources of land and energy. Yet it competes poorly with countries less well endowed. For example, in 1985 we exported to Japan goods worth \$22.6 billion and imported \$72.4 billion. The corresponding figures for West Germany were \$9.0 billion and \$21.2 billion.

No single product line accounts for our worsening position. We have lost ground in competition in automobiles, steel, machine tools, pharmaceuticals, chemicals, consumer electronics, memory chips, nuclear energy, and satellite launching.

The decay in the U.S. position has been proceeding for more than a decade. Because of its important deleterious effects, including lost jobs, the situation has been examined by the National Academy of Engineering (NAE). In a series of studies beginning in 1982, the NAE has conducted investigations of the global competitive status of U.S. industry.* As might be expected, the problems of no two industries were found to be exactly alike. However, some common features emerged. One is that despite the disparate nature of the various industries, all are of world scale. At one time, the United States was the major market, but today the total elsewhere is large and growing fast. If a company can compete in the larger global market, it can attain economies of scale in manufacturing and can spread research and development costs over a larger number of items. However, many U.S. companies, especially the smaller ones, have failed to tap the global market.

Another common theme arising from the NAE studies is the lack of coherence and mutual reinforcement among policies and institutions in the United States in contrast to the situation in Japan and to some extent in West Germany. In those countries, the report notes:

- Tax policy favors exports
- The educational system produces a large number of technical graduates—many trained for careers in manufacturing
- Capital markets foster a longer term viewpoint for evaluating investments and provide funds for exports
- Government officials at all levels recognize the vital role of exports and provide direct, visible (sometimes financial) support for them in negotiating sales and in aggressive negotiation of supportive international trade policies
- Industrial management develops product lines and formulates business strategies with world markets as the target

Some of these deficiencies could in principle be eliminated rather quickly. However, our failures in education cannot be remedied quickly and will handicap us for years to come. We have not educated as many engineers per capita as have Japan and Germany. Our vocational training effort is small in comparison with that of West Germany. There, 58 percent of the labor force has had 4 years of vocational training. The people thus trained are flexible in meeting new technological problems.

One handicap not mentioned in the report is the current public demand for a risk-free society. Such attitudes have increased costs of production in many industries, rendering them less competitive, and are likely to lead to our loss of leadership in biotechnology.

In view of the many factors contributing to our poor competitiveness, it should be clear that no single "quick fix" will suffice. Excellence in R&D, while necessary, is not sufficient. There are many weaknesses that must be addressed. In spite of these deficiencies, the members of the studies groups conclude on an optimistic note. They state that the problems identified are amenable to solution. We are not suffering some inexorable decline. We do not lack critical natural, human, or technological resources. However, a broad awareness of changing international circumstances will be required, as well as an informed understanding of the ingredients necessary for competition in international markets.—PHILIP H. ABELSON

*L. W. Steele and N. B. Hannay, *The Competitive Status of U.S. Industry—An Overview* (National Academy Press, Washington, DC, 1985).