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Crumbling Foundations of Prosperity

Two decades ago, American prosperity was solidly based. We had bountiful natural resources; our industrial plants were undamaged by war; we led in mass production techniques; and our innovative scientific capabilities were outstanding.

Today the foundations of American prosperity have crumbled to an extent not generally recognized. We still possess great natural resources, but they are not adequate to maintain a high-level economy. We face the necessity of importing more and more raw materials and finding the means to pay for them. This will be increasingly difficult, for our ability to compete in international trade is diminishing. In 1964—a good year—U.S. exports exceeded imports by \$7.1 billion. In contrast, during the first half of 1969 the value of exports topped that of imports by only \$0.15 billion.

An even greater factor than increasing imports of raw materials has been the invasion of foreign finished products such as steel and automobiles from countries that have more than recovered from the destruction of World War II. Our advantage of leadership in mass production techniques has largely disappeared. We still lead in scientific research and in the ability to innovate, but we have lost momentum.

A large contributor to our present problems has been the steel industry. Today, in spite of advantages in raw materials, it does not compete with the steel industries of Germany and Japan. It has been complacent, and slow to adopt the basic oxygen furnace.

In contrast, our chemical industry has long been a leader in research activity. Thus it comes as an especially painful blow to learn that the U.S. chemical industry, which has contributed much to our balance of payments, is feeling the effects of severe foreign competition. This fact was documented in an article by J. G. Tewksbury in the 28 July issue of *Chemical and Engineering News*. He cited as an example one of the crucial petrochemical intermediates, ethylene. This substance enters into plastics such as polystyrene and polyethylene and also into other key chemicals. Analysis of the production and distribution of major items based on ethylene reveals a dramatic change in the U.S. position. Five years ago the United States synthesized about 95 percent of the ethylene products entering foreign trade. By last year this figure had dropped to 40 percent. The big new factors were the European Economic Community and Japan, both of which changed from net importers to heavy exporters. Additional plants are being constructed in Europe and in Japan, and it is quite likely that a further diminution of the U.S. export status will occur.

Tewksbury notes that a number of factors help account for the loss of our competitive ability. The European nations and Japan encourage exports and discourage imports more vigorously than we do. Domestic producers of petrochemicals are handicapped by the oil import program which inflates the cost of their feedstocks. Another factor is the high cost of labor. A few years ago, such disadvantages for the United States were more than counterbalanced by larger plants and advanced technology. These advantages have disappeared. Plants abroad are now of the same scale, and our technology has been disseminated.

The loss of a competitive edge in this area of the chemical industry is a very serious development. It portends similar changes in other areas of high technology.—PHILIP H. ABELSON