

country is also incorrect. McLouth Steel Corp., installed its first BOP furnace in 1954—8 years before National Steel; in fact, there were 19 other commercial-scale basic oxygen furnaces in operation in this country at the time National Steel's first furnace began operation in 1962.

D. Any realistic evaluation of rates of modernization which compares the speed at which new methods of production are adopted in various countries and which seeks to arrive at value judgments about differences in such rates must necessarily recognize and allow for differences between countries with respect to a wide variety of factors, such as the following: Economic conditions, alternative uses of available funds, purpose of investment (for example, expansion versus replacement), efficiency of existing equipment contemplated to be replaced, operating costs of new facilities as compared with the costs of continuing to operate existing facilities, efficiency of existing inter-related facilities, economical scales of production, costs and benefits associated with possible improvements to existing facilities, versatility of new facilities, likelihood of further significant technological improvements in the near future, and attractiveness of other alternative new processes.

Likewise, a decision by one company to utilize its funds for a particular type of investment gives little, if any, indication of whether a similar investment would be appropriate for another company faced with completely different circumstances.

II. TECHNOLOGICAL EFFICIENCY

A. Mr. Graham asserts that German and Japanese steel companies "have been bringing into production new steel mills with the most advanced production techniques in the world" and that as a result they have been able to sell their steel cheaper in this country than American steel. He also asserts that quotas "would simply lock in our inefficiencies in the competitive steel business."

B. There is, of course, no completely accurate method of comparing steelmaking efficiencies among countries because of wide differences in methods of measurement, product mix, factor prices, and methods of industry organization. One measurement which has been used, however, is the number of man-hours required per ton of production; man-hour data, of course, reflect the combined effect of all the factors of production. In 1966, the latest year for which comparable data are available, American steel producers required an average of 12.8 man-hours per ton of shipments, versus 17.3 man-hours for Japan. With respect to the European Economic Community, a recent publication of the United Nations concluded that—

While it is not possible to derive precise conclusions from the comparison, it can be stated that: (a) One country—the United States—had lower (in most cases substantially lower) labor requirements per unit than any of the other countries covered by the comparison and also showed one of the fastest reductions in unit labor requirements between 1960 and 1964; (b) All but one of the large and medium-sized European steel industries included in the comparison had unit labor requirements one and one-half to two and one-quarter times those of the United States with a bunching of countries (on a man-hour basis) near the upper end of this range * * *.