The explanation for the phenomenon of Japan is in large part its rapid rise in output, from 5 million tons in 1950 to 10 in 1955, 24 in 1960, and 45 in 1965; a ninefold increase in fifteen years. Japanese producers were able to expand output by building new integrated plants embodying the new technology, the I-E decision. Of the 35 million tons of *new* capacity (and output) achieved between 1955 and 1965, 25 million tons was oxygen steel.

In contrast, we noted from Table II that the United States steel industry achieved peak production in 1955 and did not match this output again until 1964. Thus, steelmakers in the United States faced a much different decision, a strict R-R replacement decision.

It must be noted in addition that Japan added 15 million tons of *new OH* capacity after 1950 and *continued to increase, and to operate that capacity* into 1964.[1] Only after 1960 did Japanese OC steel production outpace that in the United States (see Tables II and V). Despite the rapid expansion of total Japanese output (roughly five-fold from 1950 to 1960 and 2.5 times between 1955 and 1960), a total of only 2 million tons of OC steel was produced in all the 1950's in Japan.

The Japanese performance has been facilitated by two other major developments — the rapid development of new sources of high quality, low cost ores and the precipitous decline in world bulk shipping costs.

It appears that nowhere in the world (with the possible exception of tiny Austria) have firms acted in accord with the pattern suggested for them by Adams and Dirlam — a pattern against which the United States industry has been measured and found wanting. Perhaps the fault lies in the measure.

VI. The Significance of 1962

The decade of the '50's appears to have been the infancy of the

1. Only after 1964 was there a significant reduction in OH capacity. The data as reported by the Japanese Iron and Steel Federation in its *Statistics of the Iron & Steel Industry of Japan for 1965*, published in 1966, show the following: (data are for the beginning of the year)

	Open Hearth Furnaces	
	No. of Furnaces	Thousands of Tons of Annual Capacity
1963	145	14,926
1964	146	17,447
1965	118	16,465
1966	82	11,318

These data reflect the difficulties of interpreting the meaning of capacity figures at a time when oxygen lances were being introduced into open hearths. For example, during 1963 capacity increased by 2.5 million tons with a net increase of one furnace. Similarly, during 1964 a net of 28 furnaces or 19 per cent was retired with a net decrease in capacity of only 5.6 per cent.