

rate would not change this conclusion. The total imports of benzenoids into the United States predicted for 1972 are equal to 2.7% of the U.S. benzenoid production predicted for 1972 (Table 7). The share of these imports estimated to be a result of adoption of the ASP Package would be equal to 0.2% of total U.S. production of benzenoids (\$17 million compared with \$9,000 million). In turn, sales of benzenoid chemicals account for about 9% of total sales of the United States chemical industry.¹

Imports will be equal to a higher percentage of total U.S. production in the dye category than in other categories. It is estimated that dye imports into the U.S. will be equal to 17% of U.S. dye production in 1972. However, because of growth in U.S. dye consumption, it is estimated that the total value of U.S. dye production in 1972 will be about 44% higher than in 1965 (the latest year for which the U.S. Tariff Commission report, *Synthetic Organic Chemicals, United States Production and Sales*, is available).

B. Expected comparative manufacturing costs, United States versus Europe

1. Dyes

Dyes were selected for this examination because of the concern expressed by many in the United States about foreign competition in the dye product category and because it is estimated that dye imports would be a higher percentage of United States production than would be the case in other benzenoid product categories.

Table 8 shows estimated United States costs for dye manufacture versus estimated German costs. Germany was selected for this cost comparison because it is the world's largest exporter of dyes. These data are based on average costs for the dye category as a whole. Costs of individual dyes vary widely from this average; however, as discussed below, this cost comparison tends to understate rather than overstate foreign costs. The comparison is made on the basis of equal plant capacity and output.

TABLE 6.—ESTIMATED INCREASE IN VALUE OF BENZENOID PRODUCTION, 1965-72

(1) Category	(2) Value of 1965 sales ¹ (million)	(3) Estimated value of 1965 pro- duction ² (million)	(4) Estimated value of 1972 pro- duction ³ (million)	(5) Increase in value of production 1965-72 after Kennedy round and ASP package (col. 4—col. 3)	
				(Million)	(Percentage)
Intermediates.....	\$955	\$2,220	\$3,300	\$1,100	50
Dyes.....	292	320	460	140	44
Pigments.....	94	120	190	70	58
Medicinals and pharmaceuticals.....	224	310	440	130	42
Flavors and perfumes.....	57	70	100	30	43
Other products ⁴	1,726	3,180	4,510	1,330	42
Total.....	3,348	6,200	9,000	2,800	45

¹ Based on U.S. Tariff Commission, *Synthetic Organic Chemicals, U.S. Production and Sales, 1965*. Minor adjustments were made to attempt to insure comparability with import statistics reported by the U.S. Tariff Commission in Imports of Benzenoid Chemicals and Products; e.g., rubber processing chemicals were included in Intermediates in the above table rather than in Other Products. Elastomers, not subject to ASP valuation method, were not included.

² Estimated by author using average sales value reported by U.S. Tariff Commission, *Synthetic Organic Chemicals, U.S. Production and Sales* for total sales as the average unit value of total production. The difference between production and sales primarily represents production consumed by the producing company rather than sold (this is commonly referred to as "captive production").

³ Estimated by author by methods presented in author's "Chemical Marketing Research," loc. cit., primarily by projecting past growth rates for individual categories into the future and adjusting for estimated changes in U.S. exports and imports. As the expected changes in exports and imports are relatively small compared with expected growth in consumption, the percentage growth in production is expected to be very close to that of consumption.

⁴ Other Products contain data for plastics and resins, plasticizers, surface-active agents, pesticides, and other organic agricultural chemicals, and miscellaneous. This is the grouping used in U.S. Tariff Commission, *Imports of Benzenoid Chemicals and Products*.

¹ For the total U.S. chemical industry, only a "value of total sales" rather than "value of total production" figure is available. Hence, this estimate was made on basis of a sales comparison rather than production. Value of benzenoid sales obtained from Table 6. Value of total United States chemical industry sales obtained from Organization for Economic Co-operation and Development, *The Chemical Industry, 1965-1966*, Paris, 1967.