As shown above, instead of the low-wage countries being large exporters of chemicals, the countries with the highest wages are the largest exporters of chemicals.

Therefore, the results of studies mentioned in Section III of the body of the study together with the data in this Appendix strongly suggest that a combination of a large market and R & D activity is much more important in explaining chemical exports than are unit wage rates.

APPENDIX D

DETAILS OF ESTIMATE OF EFFECT OF ASP PACKAGE ON UNITED STATES IMPORTS

I. PRESENT UNITED STATES TARIFF LEVELS OF BENZENOIDS

Because duties for benzenoids are based on ASP, there are no readily available statistics showing average duty based on foreign "exports values." An estimate of 45% was used for this study, based on data from the following sources:

1. H. G. Grubel and H. G. Johnson, "Nominal Tariff Rates and United States Valuation Practices: Two Case Studies," *The Review of Economics and Statistics*, May 1967, pp. 138–142. This article presents estimates of effective tariffs for benzenoid intermediates; these estimates were from a low of 40.9% to a high of 53.2%

2. Averages of ad valorem equivalents reported in T.C. Publication 181.[1] The arithmetic average of ad valorem equivalents for 12 categories accounting for 90% of benzenoid imports was 55%. However, a check of categories accounting for over half of this 90% indicated that the arithmetic averages overstate the weighted-average tariff level by 15% to 100%. This would suggest an effective tariff level of 28% to 48%.

If anything, this estimate of 45% might be a little on the high side. However, the final estimate is not very sensitive to reasonable changes in this estimate, as the use of 40% rather than 45% would decrease by less than 10% the estimated increase in imports.

II. CHANGES IN IMPORTS AS A RESULT OF CHANGES IN LEVEL OF UNITED STATES DUTIES

There are three different changes in United States duties which would be brought about by adoption of the ASP Package. Each is discussed in turn.

A. Conversion of ASP rates to conventional rates

A detailed comparison of rates after the Kennedy Round,[2] the "converted rate" calculated by U.S. Tariff Commission,[3] and the rates which would apply with adoption of the ASP Package did not reveal any systematic bias toward either higher or lower rates. Therefore, changes in tariff levels should result in an average net difference of about zero, after allowing for the increases and decreases in individual items. The effect of the removal of uncertainly in the valuation process is discussed in Section III of this Appendix.

Since the wide variety of rates on dyes would be standardized at 30% with adoption of the ASP Package, a more detailed examination was made of dye category 406.50, which accounted for approximately 70% of dye imports in 1965.[4] This category includes 272 individual dyes plus an "other" category. Dye category 406.50 has a current rate of 40% ASP which will be reduced to 20% ASP as a result of the Kennedy Round unconditional cuts. Its current converted ad valorem equivalents range from a low of 38% to a high of 172%, so this range will become 19% to 86% as a result of the Kennedy Round unconditional cuts. If the ASP Package is adopted, all of these rates would become 30%. Therefore, the lowest rate would be increased by 11% and the highest rate reduced by 56%; other rates in between these two extremes would be affected less.

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[1] United States Tariff Commission, *Products Subject to Duty on the American Selling Price Basis of Valuation; Conversion of Rates of Duty on Such Products to Rates Based on Values Determined by Conventional Valuation Methods*, Washington, D.C., July 1966. (T.C. Publication 181.)

[2] Basic data from: Office of the Special Representatives for Trade Negotiations, *Report on United States Negotiations*, Washington, D.C., Superintendent of Documents.

[3] The conventional rate calculated by U.S. Tariff Commission to result in same revenue that would result from ASP rate (see T.C. Publication 181, *op. cit.*).

[4] Calculated from reference given in Footnote 1 above.