1972, with a "high estimate" of 4.5% and a "low estimate" of 2.5% (these figures are referred to as "tariff elasticities").[3]

The tariff elasticity studies are based on changes in tariff levels weighted by trade flows. Hence, for the analysis which follows the changes in EEC/UK tariffs are based on an estimate of such tariffs weighted by United States exports to the EEC/UK. The applicable EEC/UK tariffs on chemicals without taking into account any Kennedy Round reductions are estimated to be 14.3% (on the basis of tariffs weighted by United States exports to the EEC/UK).[4]

These average EEC/UK tariffs are being reduced by approximately 21% (of 14.3%) by the Kennedy Round unconditional tariff cuts and by an additional 25% (of 14.3%) conditional on the ASP Package. Thus, the average tariff levels will be 14.3×(1.00—0.21) or 11.3% after the Kennedy Round unconditional tariff reductions and 14.3×(1.00—0.21—0.25) or 7.7% if the ASP Package is adopted.

Therefore, United States chemical exports to the EEC/UK are calculated to increase as follows as a result of the Kennedy Round unconditional tariff reductions:

Tariff elasticity		Percentage change in combined value of goods & tariff		Estimated value of exports without tariff cuts		Estimated increased exports
3.5	×	$\frac{14.3-11.3}{114.3}$	×	$1.2 billion	=	$110 million

If the ASP Package is adopted then the increase in U.S. chemical exports to the EEC/UK as a result of the combined Kennedy Round and ASP Package tariff reductions are calculated as follows:

Tariff elasticity		Percentage change in combined value of goods & tariff		Estimated value of exports without tariff cuts		Estimated increased exports
3.5	×	$\frac{14.3-7.7}{114.3}$	×	$1.2 billion	=	$242 million

Therefore, the incremental increase in United States chemical exports to the EEC/UK as a result of adoption of the ASP Package would be $132 million ($242 million minus $110 million).

III. ESTIMATE OF THE EFFECT OF VARIATIONS IN KEY VARIABLES

In order to determine a probable range of the effect of adoption of the ASP Package, calculations were made using the estimated "lows" and "highs" of both the tariff elasticity and the level of United States exports to EEC/UK without the Kennedy Round unconditional tariff reductions. A subjective estimate of 1/6 was placed on the probability of occurrence of the "low" estimates of tariff elasticities

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[3] For details of individual studies, see:

Bela Balassa, *Trade Liberalization among Industrial Countries: Objectives and Alternatives* (New York: McGraw-Hill Book Company, 1967). Appendix to Chapter 4.

R. J. Ball and K. Marwah, "The U.S. Demand for Imports 1948–1958," *The Review of Economics and Statistics,* November 1962, pp. 395–401.

L. B. Krause, "United States Imports, 1947–1958," *Econometrica,* April 1962, pp. 221–38.

M. E. Kreinin, "Effect of Tariff Changes on the Prices and Volume of Imports," *American Economic Review,* June 1961, pp. 310–24.

———, "'Price' vs. 'Tariff' Elasticities in International Trade—A Suggested Reconciliation," *American Economic Review,* September 1967, pp. 891–94.

———, "Price Elasticities in International Trade," *The Review of Economics and Statistics,* November 1967, pp. 510–16.

E. A. G. Robinson (editor). *Economic Consequences of the Size of Nations* (New York: St. Martin's Press, Inc., 1960). See Verdoorn's study presented in Chapter 19, p. 291.

[4] This estimate was made by me on the basis of a study of tariffs and trade flows. While slightly different figures can be obtained for different past years and for future years depending on the assumptions made relative to the mix of chemicals to be exported, it is believed that any error introduced as a result of adopting the 14.3% figure is not large by comparison with the ranges used in this study for the probable "low" and "high" tariff elasticities.