

PLASTICS AND THE TARIFF

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The Dilemma. The typical widget manufacturer's Garden of Eden has, I suspect, tariff walls of three different heights. The barriers protecting widget sales at home are very great. By contrast, raw materials and intermediate goods used to make widgets enter duty free. Foreign tariffs on widgets are low, ideally non-existent.

Widgets may be a figment of imagination, but the tariff dream just outlined seems to be cherished by a great many American industries. When every industry tries to legislate its own version of the dream, however, contradictions emerge. Most inputs for manufactured goods are themselves manufactured goods; furthermore, every country is both a home territory and a foreign market. One company's tariff dream thus becomes another company's nightmare.¹ Compromises are required.

In making these compromises, an industry really must choose between two broad strategies. It cannot very well advocate free trade for all products except its own. It must either champion protection, and tacitly endure tariffs both for its suppliers and foreign competitors, or it must espouse free trade, and vigorously reject all tariffs.

Most American manufacturers have chosen the protectionist course. This strategy may be perfectly logical for textiles and leather goods, but whether protection commends itself to the plastics industry is another question. Academic economists, as you know, generally oppose tariffs as contrary to consumer well-being.² My remarks here, I would like to emphasize, are addressed not to the self-interest of the consumer, but rather to the self-interest of the plastics manufacturer.

Tariff Rates. The American plastics industry grew up with protection. Pyroxylin compounds were dutied at rates varying from \$1.00 to \$0.40 per pound between 1864 and 1900.³ Beginning with its invention in 1909, phenol formaldehyde was protected by a 20% tariff.⁴

Mindful of the trade threat from Germany, the chemical industry pressured Congress for more protection after the First World War. The Emergency Tariff of 1921 and the Fordney-McCumber Act of 1922 answered these demands. Cellulosic plastics were given 60% ad valorem protection. The duty on synthetic resins was raised to 60% (lowered in 1924 to 45%) plus 7¢ per pound.⁵

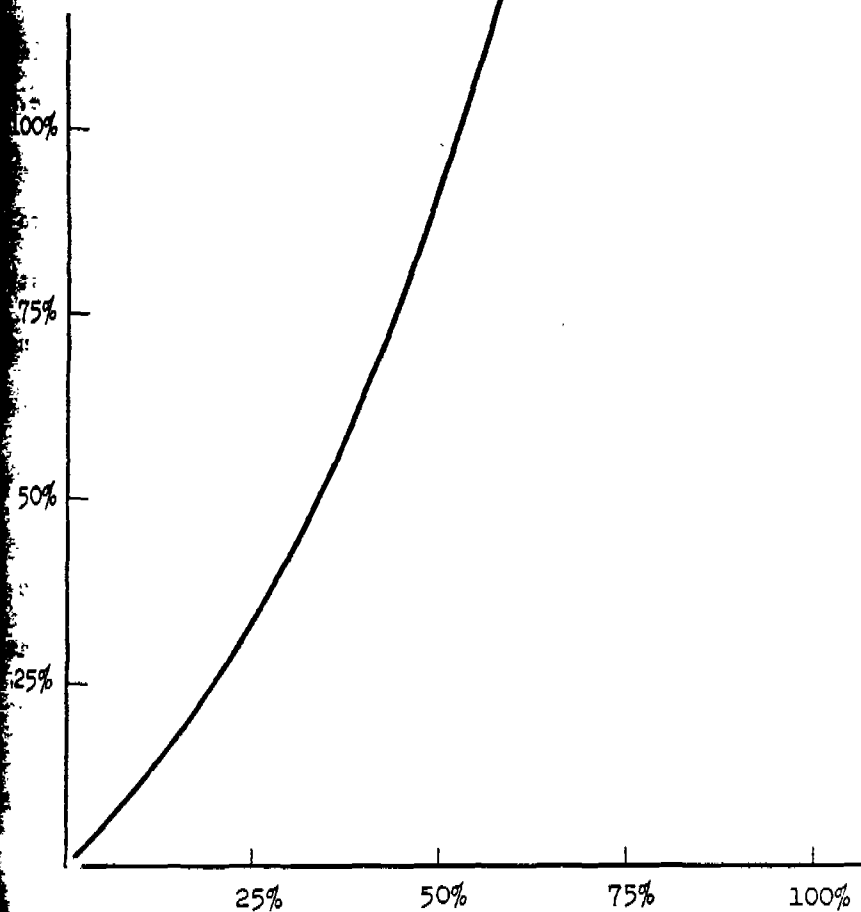
In a highly significant departure, the Fordney-McCumber Act based the resin ad valorem duty, along with duties on many coal tars and dyestuffs, on the American selling price rather than on the foreign price. This departure from customary practice was supposedly required to stop the fraudulent invoice habits of importers. In reality, it transformed high nominal rates into prohibitive duties. As explained in the margin, if the American selling price (ASP) tariff is λ , the true ad valorem rate on the foreign price can reach $\frac{\lambda}{1-\lambda}$.⁶ Diagram 1 portrays this relationship. An ASP tariff of 50% potentially gives protection of 100%; higher ASP rates become rapidly more prohibitive.⁷

The Hawley-Smoot Tariff of 1930, inspired by the Great Depression, substantially raised most duties over their 1922 levels. Rates on coal-tar synthetic resins, however, stayed at 45% of the American price, plus 7¢ per pound. Cellulosic plastics were tariffed at 80% on the foreign price. Vinyl acetate and the other newly emerging thermoplastics were assigned a duty of 30% on the foreign price, plus 6¢ per pound.⁸

The Hawley-Smoot Tariff was part of a world-wide nationalistic response to the economic collapse. Statesmen in many nations soon realized the foolishness of mutually prohibitive tariff barriers. Over the objections of the Manufacturers' Chemists' Association and other trade groups, Congress accordingly passed the

Diagram 1

Ad Valorem
Tariff on the
Foreign Price



Curve asymptotically
approaches the 100%
axis



Tariff on the
American Selling
Price

Reciprocal Trade Agreements Bill in 1934.⁹ This act enabled the President to lower American duties by as much as 50%, in exchange for similar concessions abroad. American tariff policy since Roosevelt has been based on extensions of the Reciprocal Trade Bill.

In successive rounds of tariff bargaining, American duties on plastics have been lowered from the Hawley-Smoot levels. Table 1 outlines the present rate structure in the United States and other industrial nations.

The first section of Table 1 sets forth average "nominal" ad valorem rates for the three types of plastics distinguished in the Brussels nomenclature.¹⁰ The condensation group includes phenol formaldehyde, urea formaldehyde, alkyd, polyester, silicone, and similar resins. Virtually all condensation plastics are still tariffed by the United States (though not by other countries) on the domestic selling price basis. Owing to competitive pressures at home, however, this has not noticeably benefitted the industry. The polymerization group includes polyvinyl chloride, polyethylene, polypropylene, acrylics, polystyrene, and other thermoplastics. Of these, only polystyrene receives ASP treatment. The cellulosic group comprises cellulose nitrate, cellulose acetate, and related compounds, none of which are dutied on the ASP basis. Evidently, the United States has a somewhat higher "nominal" tariff structure, especially on the thermosets, than other major industrial nations.

The second section of Table 1, drawn from the work of Professor Balassa, compares "nominal" and "effective" rates for synthetic materials as a group (plastics, synthetic rubbers, and man-made fibers).¹¹ The "nominal" tariff relates the duty to the foreign price; nominal tariffs correspond to the common concept of ad valorem tariffs. The "effective" tariff, on the other hand, relates the duty to that portion of the foreign price accounted for by value added (wages and profits) in the industry; furthermore, the "effective" tariff makes allowance for the duty on inputs.¹²

Table 1

		United States	Common Market	United Kingdom	Japan	Sweden
Average Nominal Ad Valorem Tariff Rates						
Condensation Plastics		26% ¹	18%	20%	20%	10%
Polymerization Plastics		23%	21%	10%	20%	10%
Cellulosic Plastics		21%	21%	30%	20%	10%
Average Nominal (N) and Effective (E) Rates						
		N E	N E	N E	N E	N E
All Synthetic Materials ²		19% 34%	12% 18%	13% 17%	19% 32%	7% 13%

Notes: 1. Tariffs on condensation plastics are based on the American selling price. However, internal competition has kept American selling prices beneath the maximum levels they might attain without attracting foreign supplies. Thus, while the highest feasible ad valorem tariff is 35%, the actual rate is about 26%. Cf. U.S. 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, July 1966 (TC Publication 181).

2. Plastics, synthetic rubbers, and man-made fibers.

Sources: F.K. Topping, Comparative Tariffs and Trade, volume I, 1963 (Committee for Economic Development); B. Balassa, "Tariff Protection in Industrial Countries: An Evaluation", Journal of Political Economy, December 1965.

Suppose, for example, that a finished widget costs \$1.00 on the world market, that each widget incorporates \$0.50 of raw steel and \$0.50 of wages and profits, that the nominal duty on widgets is 10%, and that the nominal duty on steel is 2%. The effective tariff on widgets is then $18\% (10\% - .5 \times 2\%) / .5 = 18\%$. The effective rate on a product exceeds the nominal rate whenever inputs are tariffed at lower nominal rates than the product in question.¹³ A low proportion of value added enhances effective protection under these circumstances.¹⁴

Effective rates on synthetic materials are generally higher than nominal rates. Following the time-honored custom of according greater protection to more highly processed goods, inputs for synthetic materials are dutied at lower rates than the materials themselves. Of the three groups making up synthetic materials, plastics enjoy the highest effective rate, at least in the United States: 42%.¹⁵ Among industrial countries, the United States has the highest overall effective rates on synthetic materials (and almost certainly on plastics), though only marginally higher than Japan. However, quotas on petrochemical feedstocks are rapidly eroding these high effective rates. Quotas on a key input exercise approximately the same impact as high tariffs.

The steep effective rates presently imposed by the United States on plastics are reflected in its low import ratio by comparison with other areas. America imports about 1.5% of its plastic needs, the Common Market imports about 2.3% of its requirements from areas other than the EEC, Japan imports around 1.7%, and Britain, about 18.9%.¹⁶ Even without high protection, the United States would probably have a low import ratio, but not so low as 1.5%.

Almost five years ago, Congress enacted the Trade Expansion Act of 1962 giving the President authority to cut tariffs up to 50% of their 1962 levels.¹⁷ The authority granted by this Act expires June 30, 1967.

In a few weeks, the results of five years' negotiations will be known.

Negotiators at Geneva have expressed pessimism, especially over tariff cuts in the chemical field. The Europeans are objecting strenuously to the ASP clause, but the American team has no bargaining authority on this point.¹⁸

The plastics industry faces a dilemma. In these last crucial weeks of the Kennedy Round, and in the years ahead, should the industry seek to exchange part of its present high protection for lower rates abroad and liberalization on key inputs? Or should it, along with other members of the Synthetic Organic Chemical Manufacturers' Association, staunchly defend the status quo?¹⁹

Comparative Advantage. The key to this dilemma lies, I think, in David Ricardo's concept of comparative advantage. To illustrate this concept, I will use a simple example. Suppose there are only two countries in the world, the United States and the Common Market, and only two products, plastics and steel. Suppose further that labor is the sole input, that prices are proportional to labor requirements, and that production conditions can be described as follows:

	United States man-years	Common Market man-years
Steel, per ton	1	1
Plastic, per ton	2	3

Under these assumptions, American prices for steel and plastic will be such that 2 tons of steel exchange for 1 ton of plastic (e.g., a ton of steel might cost \$100; a ton of plastic, \$200). In the Common Market, 3 tons of steel will exchange for 1 ton of plastic (e.g., steel, fr. 100; plastic, fr. 300). Plastic is cheaper, relative to steel, in the United States than in the Common Market. Conversely, steel is cheaper, relative to plastic, in the Common Market than in the United States. The United States has a comparative advantage in plastic; the Common Market has a comparative advantage in steel.²⁰ Under a free trade regime, the exchange rate between francs and dollars will necessarily adjust so that America exports plastic and the Common Market exports steel.²¹ Put very plainly, U. S. plastic industry and the Common Market plastic industry would both expand

under free trade, while the U. S. steel industry and the Common Market steel industry would both contract.²² The former two industries are natural allies in the cause of free trade; the latter are natural advocates of protection.

But does the complex real world actually favor the American plastics industry with a comparative advantage? Direct productivity comparisons are hard to obtain.²³ Nevertheless, there are, I submit, at least six indicators of American prowess at manufacturing plastic.

In the first place, the United States exports a larger share of its plastics output than its output of other manufactured goods. Between 1952 and 1965, plastic exports ranged between 6% and 12% of production. By contrast, exports of all manufactures fluctuated around 3.5% of total sales. To be sure, as a given plastic matures and its technology becomes well known American exports may decline as a percentage of output.²⁴ Despite pessimistic comments from some quarters, however, I detect no reversal of the export prospects for the industry as a whole.²⁵ As old products decline new products and new processes will take their place.

Secondly, the manufacture of plastic requires a great deal of capital. Equipment and structures per man amount to about \$17,600, whereas the average U. S. manufacturing plant utilizes only about \$4,500 per man. The lower labor costs enjoyed by competing industrial nations thus count less heavily in the plastics trade than elsewhere, simply because depreciation charges and profits assume greater importance per unit of output.

Third, the plastics industry employs more skilled labor than the average firm. This is indicated by an average wage rate of \$7,130 per man, contrasted with a wage of \$5,880 for manufacturing taken as a whole. The use of human capital, like the use of physical capital, enhances the industry's position vis-a-vis other American manufactures.²⁶

Fourth, the United States enjoys a technical lead in plastics manufacture over virtually all nations save Germany. The frequency of licensing arrangements and joint ventures between U. S. firms and overseas companies attests to American know-how. One quantitative device I have used to measure technical disparity between nations is the "imitation lag." This figure relates average national first production dates for various plastics to average world first production dates. A short lag indicates technical leadership. As of 1962, both the United States and Germany had plastic imitation lags of 2.5 years; Britain had a lag of 8.1 years; all other countries had lags of 10 years or more.

Fifth, economies of scale characterize plastic manufacture, particularly manufacture of the petrochemical thermoplastics. Since American markets are large, the United States firm can more confidently erect a big plant and reap this advantage than his foreign competitor.

Sixth, the trade record of the United Kingdom, the one large industrial nation which most nearly practices free trade in plastics, offers much hope for the United States. In 1965, Britain exported nearly \$227 million of plastic material, and imported only \$153 million. If the United Kingdom, with various disadvantages when compared to the United States, can achieve a large export surplus under conditions approaching free trade, it seems likely that the United States can accomplish the same feat on a much grander scale.

Looking at these six indicators, I conclude that the United States has a strong comparative advantage in making plastics. If this conclusion is correct, then the typical American plastic firm has more to gain by all around free trade than by universal protection.²⁷

Apart from its comparative advantage at home, the American plastics industry has, I think, an international stake in free trade. Through licensing arrangements, joint ventures, and sole ownership, the larger manufacturers are becoming extensively committed to overseas production.²⁸ This commitment will

prove most rewarding if each new plant can be designed to service a large market. Costs of production rise rapidly when small, uneconomical plants must be installed for each product in each country. But the ideal of large markets can be achieved only when free trade conditions exist in broad geographical areas. The international chemical firm thus has a general interest in promoting low tariffs.²⁹

Some Qualifications. Evidently I believe that free trade commends itself to the U. S. plastics industry. Yet historically this industry has favored high tariffs. Am I to conclude that the industry has mis-judged its own self-interest? Not entirely.

To begin with, the industry's tariff position was really developed in 1922. At that time, plastics were in their infancy; the industry may have been truly disadvantaged in an all-out competitive struggle with Germany. But conditions change in 45 years. The policy response of the 'twenties may no longer be appropriate to the 'seventies and 'eighties.

Secondly, the plastic industry belongs to the chemical industry, more precisely, to the organic chemical industry. In my estimation, free trade commends itself to the chemical industry as a whole, but undoubtedly there are many organic chemicals -- particularly coal-tar intermediates and dyestuffs -- which would suffer under this policy. A firm with far-flung interests in many products cannot very well advocate protection for some, free trade for others. To maximize its effectiveness, it must stand wholly for tariffs, or wholly against them. The same is even more true of industry associations. In deciding which way to turn most firms and associations have, it seems, paid undue attention both to their own tariff arguments advanced a generation ago and to their less competitive products. But cool economic calculation might, in fact, lead some firms to choose the protective way.³⁰

Third, the chemical industry may genuinely believe that it can best serve the American balance of payments distress by maintaining a high tariff wall and

keeping imports at a minimum.³¹ The balance of payments problem is too broad for consideration here, but I think American manufacturers have a common interest in finding an exchange rate solution, rather than restrictive measures on imports, capital movements, tourist, or government activity abroad.

Fourth and last, there are probably those who believe that "foreign-trade zones" will answer the tariff dream of the plastics industry. Hence they feel little incentive to lobby for lower tariffs. Under enabling legislation passed in 1934, the Secretaries of the Treasury, Commerce, and Army can designate zones in or adjacent to Ports of Entry.³² An area with zone status can store, manufacture, and process foreign goods, adding American components to the imported supplies, without paying customs duty. If the goods do subsequently enter the United States, an appropriate duty is then paid on the import content.³³

Until recently, zones were mostly located in major cities, such as New York, New Orleans, and San Francisco for warehousing purposes. In the past few years, however, zones have been established in Puerto Rico and Bay City, Michigan, and Taft, Louisiana, at the behest of petrochemical firms.³⁴ Foreign-trade zones offer the petrochemical firm two major advantages.

First, the petrochemical firm can service the export market without initially paying duty on inputs. To be sure, the firm might eventually obtain drawback of duty anyway, but the foreign-trade zone avoids cash outlays to the customs authorities and bypasses red tape. Upon payment of appropriate duties, the zone plant can also sell to the U. S. market. Economies of large scale production can thus be realized just as if the plant were located in American customs territory.

The second major advantage remains in the anticipatory stage. A Presidential proclamation of December 1965 gave the Oil Import Administration power to set oil quotas for foreign-trade zones located in the continental United States. The proclamation, however, did not apply to Puerto Rico; hence the Union

Carbide zone plant in Penuelas can import feedstock unrestricted by quotas. The Oil Import Administration has yet to make its maiden decision on quotas for mainland zones, but petrochemical firms are hoping that the Administration will look favorably upon their feedstock needs. An application from Dow Chemical for Bay City is pending; Union Carbide is apparently awaiting the outcome to submit its own request for the Taft complex.

Needless to say, the domestic oil interests are vigorously resisting any quota liberalization for the foreign-trade zones. Wrapping themselves in both flag and balance of payments, they contend that feedstock allotments would damage the national interest. From an academic viewpoint, the petrochemical firms could, in my opinion, have the better of both these arguments. But the Oil Import Administration can hardly be expected to decide the issue on its academic merits. The domestic oil industry has strong political connections.

While I applaud the foreign-trade zone concept, it is only a partial answer to the needs of the plastic industry. Zones will lose most of their attraction if the petroleum interests have their way on quotas; in any event, zones will do nothing to lower tariffs abroad or to reduce duties on chemical inputs. Despite the allure of zones, therefore, I suggest that the American plastics industry not forget its long-range interest in universal free trade.

Footnotes

1. W. Haynes provides an amusing example: "...the interests of American manufacturers of synthetic aromatic raw materials and of finished cosmetics collided violently and each suggested diametrically opposite remedies. This clash enlivened the dinner of the Perfumery, Soap & Allied Industries at the Hotel Astor, New York City, on March 28, 1923. [The cosmetics industry had appealed] to Washington... for a 50 per cent reduction in the duties on the raw materials of cosmetics... [At the dinner] Dr. S. Isermann of Von Dyk & Company and Dr. L. Jenkel of Denney & Denney fought back bitterly in defense of the duty on raw materials, landing some sarcastic blows on the selfish inconsistency of the highly protected perfumers." American Chemical Industry, volume IV, p. 296, 148.

2. Certain exceptions are made for "infant industry" and "optimal tariff" arguments, but these arguments have more relevance to developing countries than to advanced industrial nations.

3. W. Haynes, American Chemical Industry, volume I, Appendix VI, 1948. The comparable ad valorem rate was probably about 50%.

4. W. Haynes, op. cit. This rate was levied under the Payne-Aldrich Act.

5. W. Haynes, American Chemical Industry, volume II, Appendix V, 1948. The rates in the Underwood Tariff of 1913 had been 40% on cellulose and 15% on synthetic resins.

6. Let P_a represent the American price for a given article, and P_f the foreign price for the same article. If the American selling price is governed only by foreign competition, the following relationship must hold, at least approximately, for imports of the good:

$$(i) \quad P_f + \lambda P_a = P_a$$

The ad valorem rate on the foreign price, t , is given by the expression:

$$(ii) \quad t = (P_a - P_f)/P_f$$

If relationship (i) is solved for P_f , and that solution value is substituted in (ii), it becomes evident that:

$$(iii) \quad t = \lambda / (1 - \lambda)$$

The ad valorem rate will be lower if domestic competition keeps the American selling price below the maximum level set by potential foreign competition. For an empirical study, see United States Tariff Commission, Products Subject to Duty on the American Selling Price Basis of Valuation; Conversion of Rates Based on Values Determined by Conventional Valuation Methods, July 1966 (TC Publication 181).

7. F. W. Taussig, the noted international economist, resigned from the Tariff Commission over the high rates of the Fordney-McCumber Act. He specifically opposed the generous protection for the dye industry, which largely resulted from the ASP tariff system. Taussig even suggested that German and Swiss firms were better suited to the dye trade than American companies. Events of the past 45 years have not proven him wrong. Cf. W. Haynes, American Chemical Industry, volume IV, pp. 266-70, 1948.
8. W. Haynes, American Chemical Industry, Volume IV, Appendix I; volume V, Appendix VI, 1948.
9. W. Haynes, American Chemical Industry, volume V, p. 59, 1948.
10. The difference between "nominal" and "effective" rates is explained below. Most countries employ the Brussels nomenclature to classify their tariff rates.
11. B. Balassa, "Tariff Protection in Industrial Countries: An Evaluation," Journal of Political Economy, December 1965.
12. Let t_i represent the ad valorem nominal rate on product i ; a_j , the input of product j per unit of product i ; t_j , the nominal rate on product j ; and v_i , the proportion of product i accounted for by value added. The effective rate on i , z_i , can then be expressed as:

$$(i) \quad z_i = \frac{t_i - \sum a_j t_j}{v_i}$$

Cf. B. Balassa, op. cit., p. 577.
13. Conversely, when inputs have higher duties than the product, effective protection will be less than nominal protection. It is quite possible for effective protection to be negative.
14. Effective protection for some processing activities can thus be quite high: with a nominal tariff of 40%, makers of venetian blinds enjoy an effective rate of 107%. G. Basevi, "The United States Tariff Structure," Review of Economics and Statistics, May 1966, p. 155.
15. G. Basevi, op. cit. The estimated effective rate on synthetic rubber is 10%, on cellulosic man-made fibers, 39%, and on synthetic man-made fibers, -2%.
16. These figures are based on data presented in A. J. Warner, "Problems Facing the Plastics Industry," January 5, 1966, and United Nations, Commodity Trade Statistics (Series D), 1964 and 1965. Including imports from the EEC, the Common Market has a ratio of about 12.8%.
17. As bait for Britain and other nations to enter the Common Market, the Act also provided that tariffs could be eliminated on products in which the EEC and the United States together accounted for 80% of free world exports. Since the EEC has not been enlarged, this provision applies to very few items. The United States and the present EEC, for example, account for only 72% of plastic exports. Cf. W. B. Kelly, editor, Studies in United States Commercial Policy, 1963, chapter II. This volume also provides a very readable history of United States tariff legislation.

"Mr. Blumenthal [the chief U. S. negotiator] says it's possible there will be little or no reduction of protective tariffs in the chemical field.

"This may or may not have implications for the overall prospects of the Kennedy Round," adds the negotiator, "but one thing is certain -- the biggest losers, if chemicals remain untouched, will be the chemical industries throughout the world." "Wall Street Journal, December 16, 1966.

Blumenthal's views are based on the fact that 19% of the chemical industry's direct inputs come from the chemical industry itself. The plastics industry purchases 35% of its inputs from the chemical industry. Cf. "The Transactions Table of the 1958 Input-Output Study," Survey of Current Business, September 1965, Table 2.

An act of Congress would be required to change the ASP clause.

For the views of this Association, consult the Oil, Paint, and Drug Reporter, September 12, 1966.

0. As this example illustrates, the term "comparative advantage" refers to two comparisons: first, the cost of the chosen product is related to the cost of another product (or basket of products) within the country; second, the price ratio between products within the country is related to the price ratio between the same products in another country (or the world at large). The country enjoys a comparative advantage in the chosen product if its price ratio for that product is more favorable than price ratios elsewhere; otherwise, the country has a comparative disadvantage.

21. For example, if demand conditions are such that the exchange rate settles at \$1 = fr. 0.75, the following prices, all expressed in dollars, will result: U. S. steel, \$100 per ton; U. S. plastic, \$200; Common Market steel, \$75; Common Market plastic, \$225. Plastic is cheapest in the United States, while steel is cheapest in the Common Market. The export pattern described will emerge as consumers seek the least expensive source of supply.

The extent of expansion and contraction would depend on the precise nature of cost conditions in the two countries.

3. Among other things, qualitative variations between products falling in the same statistical classification, different marketing ability of different firms, and productivity disparities between firms in the same industry within a country, all render meaningful comparisons quite difficult. Nevertheless, G.D.A. MacDougall has broadly confirmed the relevance of comparative advantage theory to trade conditions: "British and American Exports: A Study Suggested by the Theory of Comparative Costs, Part I; Part II," Economic Journal, December 1951; September 1952. Also compare the follow-up articles by R. M. Stern and G. D. A. MacDougall in Oxford Economic Papers, October 1962.

I have developed this theme at length in Synthetic Materials and the Theory of International Trade, 1966.

25. Fascism was expressed, for example, by A. J. Wanrer in "Problems Facing the Plastic Industry," January 21, 1966, pp. 21-23. In 1965, the United States exported some \$125 million of plastics; in 1966, the figure rose to about \$470 million.
26. H. Y. Waehrer has documented the positive connection -- which would be expected from theoretical considerations -- between high wage rates (implying high levels of labor skill) and U. S. exports. Inter-Industry Skill Differences, Labor Earnings and United States Foreign Trade, 1960 (Columbia University Ph.D. thesis).
27. The attractions of free trade would be magnified if developing countries were permitted to sell a range of light manufactures (textiles, processed foods, etc.) to the United States. If poor nations could solve their foreign exchange difficulties by enlarging exports, they would less readily practice "import substitution" on plastics and other hard-to-make products.
28. International firms should reflect on their own possible participation in larger U. S. imports resulting from lower trade barriers.
29. This interest may be satisfied through the creation of regional free trade areas, rather than through multilateral tariff reduction.
30. It seems doubtful, however, that many firms have rationally calculated an overall tariff position.
31. See the position of the Synthetic Organic Chemical Manufacturers' Association, Oil, Paint, and Drug Reporter, September 12, 1966.
32. R. H. Lake is the very helpful Executive Secretary of the Foreign-Trade Zones Board, located in the Department of Commerce. The literature on foreign-trade zones includes: Foreign Trade Zones Board, Laws, Regulations, and Other Information Relating to Foreign-Trade Zones in the United States, June 1966; Annual Report of Foreign-Trade Zones Board (published each year); W. A. Dymaza, Foreign Trade Zones and International Business, 1964; articles by R. H. Lake in American Import and Export Bulletin, July 1963, International Commerce, July 15, 1964, The Oil Daily, November 8, 1965.
33. Usually raw materials pay lower tariffs than finished goods. Duties levied on "raw" import content are thus lower than the duties which would be collected on the same goods in more highly fabricated form if it came from abroad. Incidentally, when the tariff structure is "inverted" (higher duties on finished goods than on raw products), the Customs authorities have allowed the lower duty to prevail.
34. Oil, Paint, and Drug Reporter, September 19, 1966. Union Carbide, Dow Chemical, and Union Carbide respectively.