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I. Introduction

The purpose of this paper is to provide empirical answers to the following questions concerning the trade patterns of Western Europe. What were the impacts of the Dillon and Kennedy Rounds of tariff reductions? How did the creation of the EEC and EFTA affect their trade? How will the enlargement of the EEC in the context of of a broader area of free trade affect the level and distribution of trade in Western Europe?

The investigation is based upon the simulation of an econometric model estimated for 1953 to 1968 of bilateral trade flows for ten West European countries.[1/] The model is specified in a multi-stage framework combining traditional total import demand equations with share equations explaining the division of the total. For each of the ten EEC and EFTA countries which we call Europe, total real imports of non-food goods depends upon real income, relative prices,

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1. Belgium, France, West Germany, Italy, the Netherlands, Austria, Denmark, Norway, Sweden, and the United Kingdom. The imports of and from Luxembourg are combined with those of Belgium. Switzerland and Portugal are omitted due to lack of data. Finland did not become a full member of EFTA until 1970.

and a pressure of demand variable. Next these imports are distributed between two main blocs, Europe and the rest of the world, where prices of the respective blocs are the arguments of the linear share equations. Third, imports from Europe are distributed between two competing blocs, the EEC and EFTA countries, where again prices of the respective blocs appear as arguments determining the relative shares. Finally, the model explains the distribution of imports within each of the basic blocs of the system (EEC and EFTA) using prices of the individual member countries are arguments.[2/]

The specification of the model provides estimates not only of direct price effects on bilateral trade but also of cross-price effects.[3/] Moreover, since the price variables referred to above are specified inclusive of tariffs, this permits us to use the estimated price coefficients directly to simulate trade patterns under alternative tariff configurations.[4/]

The analysis in this paper is based upon the pattern of West European imports in 1968. The tariff policy simulations are designed to answer the questions: what would the 1968 trade pattern have looked like in a different constellation of tariffs had been in

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2. See Resnick and Truman (1973) for the details of the specification and estimation of the model.

3. For price coefficients and their estimated standard errors see Resnick and Truman (1973).

4. The model assumes that the supply of imports is perfectly elastic within the relevant range. This assumption along with the assumption of no statistically significant difference between price and tariff elasticities of import demand allows us to estimate a coefficient on the import price inclusive of tariffs. We tested this latter assumption for the total import equations and found that in general it was justified, see Resnick and Truman (1973).

force and how would it have differed from the actual or some other predicted pattern. Section II presents the results of two retrospective simulations: the impact of the Dillon Round of tariff reductions and of the formation of the EEC and EFTA. Section III presents the results of two prospective simulations: the impact of the Kennedy Round of tariff reductions and of the enlargement of the European Community. The values of the relevant average tariffs used in the simulations are summarized in Table 1.

Table 1 -- Average Tariff Rates for the EEC and EFTA Countries Used in the Policy Simulations

Importing Country	TARIFF			
	1958[a]	After Dillon Round[b]	1968 External Tariff[c]	External Tariff After Kennedy Round[d]
Belgium	.097	.087	.104	.066
France	.170	.153	.104	.066
Germany	.064	.058	.104	.066
Italy	.187	.168	.104	.066
Netherlands	.097	.087	.104	.066
Austria	.149	.114	.114	.082
Denmark	.056	.052	.052	.032
Norway	.103[e]	.103	.103	.064
Sweden	.065	.063	.063	.042
United Kingdom	.165	.149	.149	.092

[a]Based upon a simple average of the 1958 tariffs by SITC groups published by Political and Economic Planning (1959 and 1962). The rates published in these sources for Italy and Germany were adjusted by 10 and 25 percent respectively to reflect tariff cuts during the 1950s.

[b]For the EEC countries it was assumed that their tariffs would have been cut by 10 percent after the Dillon Round of negotiations, although in fact the EEC's common external tariff was reduced by about 20 percent. For the EFTA countries except the United Kingdom, the prevailing external tariffs after the Dillon Round were calculated as a simple average of the tariffs for SITC groups as found in European Free Trade Association (1969, Annex III). For the United Kingdom a cut of 10 percent was used based upon newspaper accounts.

[c]For the EEC countries based on the data published in the source cited in footnote a adjusted for the 20 percent cut at the time of the Dillon Round of tariff negotiations. For the EFTA countries the rates are the same as those prevailing after the Dillon Round cuts.

[d]The size of the Kennedy Round cuts in external tariffs for the EEC and the United Kingdom was based on Preeg (1970, pp.209-210) except that Preeg's figure for the percentage cut by the United Kingdom was reduced by one point to adjust for lack of execution of the separate agreement with the U.S. on the "American selling Price" for chemicals. The size of the cuts by the four other EFTA countries was based on the United States Office of The Special Representative for Trade Negotiations (1967, Vol. 1).

[e]The average tariff based upon the source cited in footnote a was .101 and this was used in the model's estimation. The figure in the table was used in the policy simulations. The difference reflects the re-weighting of the basic rates in the source cited in footnote b.

The simulations of the 1968 pattern of trade involve three simplifications: (1) we assume that 1968 domestic and export prices are independent of the changes in tariffs;[5] (2) we ignore the feedback of changes in tariffs on income and changes in income on imports; (3) we ignore any so-called dynamic integration effects upon income and changes in income on imports, such as increases in productivity as a result of freer movements of factors of production. The basic simulations were performed in terms of real imports. The results presented below are converted to millions of U.S. dollars in 1968 prices. The Appendix summarizes the simulation procedure.

II. Retrospective Policy Simulations

Although the focus of this section is upon the impact of the formation of two trade blocs in Western Europe, between 1958 and 1968 there were two sets of tariff changes by the EEC and EFTA countries: the Dillon Round of tariff reductions in 1961 and the various tariff changes between 1959 and 1968 accompanying the formation of the EEC and EFTA. Therefore, we must first isolate the effects of the Dillon Round. Specifically, how would the pattern of trade in 1968

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5. This assumption is the same as that underlying the estimation of the model itself. In the estimation of the model the price index of the exporting country inclusive of tariff was used as the import price, i.e., $P_x(1+T) = P_m$. There are 20 basic export prices in the model: one for each of the 10 EEC and EFTA countries and 10 for exports of the rest of the world to each of them.

with the Dillon Round reductions applied to all imports have differed from the pattern with the tariff levels prevailing in 1958?[6] The results of this simulation are summarized in Table 2.[7] The results show an overall increase in imports amounting to about one percent of 1968 trade.[8]

Table 3 summarizes the impact on the trade of the ten countries in the model resulting from the tariff changes between 1958 and 1968 associated with the formation of two separate trade blocs in Western Europe. These results show the changes in the pattern of trade in 1968 after removing the effects of the generalized Dillon Round of tariff reductions of the previous exercise.[9]

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6. As far as trade within the EEC or EFTA is concerned, the estimated Dillon Round effects are hypothetical since by 1961 internal tariffs had been cut below the Dillon Round level. Moreover, for the EEC countries the Dillon Round involved the negotiation of a cut in the target level of the EEC's proposed common external tariff. The negotiated reduction was about 20 percent, but part of this was in compensation for the discriminatory tariff changes which were to accompany the formation of the EEC. Consequently, in making the hypothetical estimates for a generalized Dillon Round of tariff reduction, a figure of ten percent was used for each EEC country -- equal to the average cut by the other Dillon Round participants.

7. Tables showing the results of this and the following simulations for each of the ten countries are available from the authors upon request.

8. The base for this comparison is the pattern of trade in 1968 that would have prevailed without any alteration in the tariffs prevailing in 1958. This trade matrix is used for all such comparison for the retrospective simulations.

9. For some countries in the model the last tariff changes reflecting the formation of the trade blocs occurred on July 1, 1968 and, therefore, the model was estimated with a small residual tariff differential for this year, for this simulation the predicted pattern of trade with the completed tariff adjustments was used.

Table 2 -- Summary of the Effects on Trade in 1968 of the Dillon Round of Tariff Reductions by the EEC and EFTA Countries (millions of U.S. dollars, 1968 prices)

Exporting Country Group	Change in Imports by[a]			Change in the Trade Balance[c]
	EEC	EFTA	Total[b]	
1. EEC	297	91	388	-244
	(1)	(1)	(1)	(-0)
2. EFTA	95	13	108	-93
	(1)	(0)	(1)	(-0)
3. Rest of the World	241	97	338	338
	(1)	(1)	(1)	
4. World, Total[d]	632	201	833	0
	(1)	(1)	(1)	

[a]A positive figure indicates an increase in imports in 1968 over what they would have been in the absence of both the Dillon Round and the formation of the two trade blocs. The figures in parentheses express these estimated effects as percentages of estimated 1968 trade levels under the tariffs prevailing in 1958.

[b]Sum of the changes for the EEC and EFTA, except for rounding.

[c]Difference between the change in total exports measured from the import side in the previous column and the change in total imports given in line 4, ignoring the change in exports to or imports by the rest of the world. The figures in parentheses for the EEC and EFTA lines express the estimates as a percentage of estimated 1968 total imports under the tariffs prevailing in 1958.

[d]Sum of the first three lines except for rounding.

Table 3 -- Summary of the Effects on Trade in 1968 of Tariff Changes Accompanying the Formation of the EEC and EFTA (millions of U.S. dollars, 1968 prices)

Exporting Country Group	Change in Imports by[a] EEC	EFTA	Total[b]	Change in the Trade Balance[c]
1. EEC	3,920 (19)	-154 (-2)	3,766 (13)	2,576 (5)
2. EFTA	-1,229 (-16)	672 (16)	-557 (-5)	-769 (-3)
3. Rest of the World	-1,500 (-6)	-307 (-3)	-1,807 (-5)	-1,807
4. World, Total[d]	1,190 (2)	212 (1)	1,402 (2)	0

[a]A positive (negative) figure indicates an increase (decrease) in imports in 1968 over what they would have been in the absence of the formation of the two trade blocks, but with the Dillon Round of tariff reductions applied to all countries. The figures in parentheses express these estimated effects as percentages of estimated 1968 trade levels under the tariffs prevailing in 1958.

[b]Sum of the changes for the EEC and EFTA, except for rounding.

[c]Difference between the change in total exports measured from the import side in the previous column and the change in total imports given in line 4, assuming no change in exports to or imports by the rest of the world. The figures in parentheses for the EEC and EFTA lines express the estimates of the changes in the trade balances as a percentage of estimated 1968 total imports under the tariffs prevailing in 1958.

[d]Sum of the first three lines, except for rounding.

As a percentage of the basic 1968 trade matrix, the results in Table 3 show a remarkably similar impact of the formation of the two blocs on their intrabloc trade.[10] In absolute and percentage terms, however, the EFTA countries suffered a greater loss in exports to the EEC countries than vice versa.[11] The formation of both blocs involved the abolition of tariffs on imports from partner countries, but the the formation of the EEC was also accompanied by the adjustment of national tariffs on imports from non-members to the EEC's common external tariff; see Table 1. For the Benelux countries and Germany, this latter adjustment was upward which shows up in the analysis as further reducing imports from non-members. But for France and Italy, the adjustment was downward which in part mitigates the impact of the internal tariff adjustment.[12] In fact, the estimated net impact of the two changes on Italian imports shows up as an increase in imports from the rest of the world.

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10. In percentage terms but not in absolute magnitude these results are similar to those found by Truman (1972).

11. The relatively small decline in total EFTA imports from the EEC reflects in part the fact that the simulation yields an increase in U.K. imports from the EEC as a result of the formation of the EFTA. This reflects a spillover effect from the reduction in imports from the rest of the world; this phenomenon is discussed in detail in Resnick and Truman (1973). Nevertheless, the percentage reduction in imports by the other four EFTA countries from the EEC was less than the percentage reduction in EEC imports from EFTA.

12. The results in Table 3 are based upon the combined impact of the two types of tariff changes by the EEC countries.

Table 4 presents in the first five columns estimates for each of the ten EEC and EFTA countries of the trade created and trade diverted through the formation of the two trade blocs. Gross trade created in column (1) is measured as the total increase in imports replacing domestic production. Gross trade diverted in column (2) is measured as the reduction, if any, in imports from the rest of the world or the other trade bloc; the division between the two is shown in columns (3) and (4). Column (5) gives the net amount of trade created or trade diverted.

Underlying the discussion of trade created and diverted by the formation of the two trade blocs is the welfare economist's concern with the real gains from trade. The results presented in Table 4 show only the change in the value of and not the change in the gains from trade associated with the tariff changes. There is only the presumption that the sign of the welfare effect is the same as the sign of the trade effect.[13] Moreover, even accepting this presumption we can only use the results of Table 4 to say that where trade diverted exceeds trade created there is a welfare loss to the country involved viewed as an importer and to the world as a whole. We cannot say there is a loss to the country viewed as an exporter or to the customs' union or free trade area as a whole.[14]

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13. There are two problems involved here: one of aggregation and the other of measurement of the appropriate welfare effects.

14. This analysis is based upon the partial equilibrium analysis of H. G. Johnson (1962).

Table 4 -- Estimates of Trade Created and Trade Diverted from the Formation of the EEC and EFTA and the Enlargement of the EEC (millions of U.S. dollars, 1963 prices)

	Formation of EEC and EFTA					Enlargement of EEC[a]			Combined Effects		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		Gross Trade Diverted					Gross Trade Diverted			Gross Trade Diverted	
Country	Gross Trade Created	Total	from R.O.W.	from Europe	Net[b]	Gross Trade Created	R.O.W.	Net[c]	Gross Trade Created[d]	R.O.W.[e]	Net[f]
Belgium	152	-281	-198	-231	-129	52	h	52	204	-198	185
France	582	-737	-637	-100	-155	39	-152	-113	621	-789	-168
Germany	(-659)[i]	-1,732	-1,040	-692	-1,732	273	-236	37	273	-1,276	-1,003
Italy	1,022	-62	(273)[j]	-62	960	124	-34	90	1,146	-34	1,112
Netherlands	93	-190	-78	-112	-97	58	-15	43	151	-93	58
EEC, Total	1,849	-3,002	-1,774	-1,228	-1,153	546	-438	109	2,395	-2,212	183
Austria	12	-42	h	-42	-30	78	h	78	90	h	90
Denmark	6	-179	-75	-104	-173	0	-48	-48	6	-123	-117
Norway	101	-65	h	-65	36	74	h	74	175	h	175
Sweden	12	-108	h	-108	-96	24	h	24	36	h	36
U.K.	81	-231	-231	(168)[k]	-150	346	-45	301	427	-276	151
EFTA, Total	212	-625	-306	-319	-413	523	-94	429	735	-399	336
Europe Total	2,061	-3,627	-2,080	-1,547	-1,566	1,069	-531	538	3,130	-2,611	519

[a]And the establishment of broad European free trade.
[b]Column (1) plus Column (2); net trade created (+) and net trade diverted (-).
[c]Column (6) plus Column (7) including only trade diverted from the rest of the world; net trade created (+) and net trade diverted (-).
[d]Column (1) plus Column (6).
[e]Column (3) plus Column (7).
[f]Column (9) plus Column (10) including only trade diverted from the rest of the world; net trade created (+) and net trade diverted (-).
[g]Only a partial estimate, see text footnote 15.
[h]Not estimated, see text footnote 15.
[i]Trade erosion not included in the total
[j]External trade creation not included in the total.
[k]Increased trade deflected from R.O.W. not included in the total.

For both blocs, trade diverted exceeds trade created, but net trade diverted is a larger percentage of total estimated 1968 imports for the EEC than for EFTA.[15] For only two of the ten countries (Italy and Norway) is the value of trade created larger than the value of trade diverted. For Germany, there is trade erosion: total imports decline as a result of the formation of the EEC. This reflects Germany's upward adjustment to the common external tariff.

These results showing a preponderance of trade diverted suggest that there is greater substitution between alternative sources of imports than between total imports and domestic production. It is possible that the estimation of the total import equations which generates the value of gross trade created understates the latter substitution effect. In particular our use of GNP deflators as the domestic price variable may have biased the estimated price coefficients downward. This possibility was tested by estimating the total import equations using the countries' manufacturing GNP deflators, wholesale price indexes, and export price indexes as alternatives. In general, these experiments yielded results that were inferior by standard statistical tests. Moreover, for only three (France, The Netherlands and The United Kingdom) of the seven countries where trade

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15. The amount of trade diverted is probably underestimated especially for the EFTA countries. For three of the EFTA countries (Austria, Norway, and Sweden) and only one of the EEC countries (Belgium), we estimated separate total import equations for imports from Europe and for imports from the rest of the world. Consequently, for these countries the substitution effect on imports from the rest of the world associated with the internal tariff reductions is constrained to be zero; see Resnick and Truman (1973).

diverted was greater than trade created would any of the alternative estimates of price coefficients reverse the results.[16] It is possible that our estimation of the share equations picked up an integration effect that we were unable to separate (Resnick and Truman, 1973). Nevertheless, the results presented in Table 4 are based upon what we believe to be reasonable estimates of the tariff effects of the formation of the two trade blocs.[17]

It is not uncommon to find concern with the real gains from trade confused with worry about a country's trade balance.[18] The last column of Table 3 is addressed to the latter issue. Our estimates show a dramatic improvement in the trade balance of the EEC countries as a

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16. This reversal of the results requires the strong assumption that changing the domestic price variable would not alter the share-change results. Since the domestic price is used as a deflator in the share equations, these price coefficients also in general increase. Given the share-change results from the estimated model, the critical ratios of the price coefficients in the total import equations to the estimated coefficients required to yield zero net trade diverted are as follows: Belgium (1.5), France (1.1), The Netherlands (1.8), Austria (2.6), Denmark (6.6), Sweden (4.6), and the United Kingdom (1.6).

17. We should acknowledge that the trade created-trade diverted results in this paper differ from those found, for example, by Truman (1969,1972) and Williamson and Bottrill (1971). It is possible that these alternative results showing net trade created reflect the attribution of a spurious trend effect of increased imports to internal and external trade created.

18. Major and Hays (1970), for example, describe trade diversion as the source of the major benefits from the formation of the EEC.

group matched by a deterioration in the trade balances for the EFTA countries and for the rest of the world. All of the EFTA countries show deteriorations in their trade balances as a result of the formation of the two trade blocs [19] led by Austria where the deterioration amounts to nine percent of its estimated total 1968 imports and by the United Kingdom where a $430 million deterioration is four percent of its estimated total 1968 imports.

Among the EEC countries, there is a small deterioration in Italy's trade balance. The Italian case illustrates the trap one can fall into in focusing narrowly on a country's trade balance. Although in the simulations there was a modest $200 million deterioration in Italy's trade balance, its exports to the EEC increased by over 30 percent and its total exports to Europe by 24 percent -- the largest percentage increases for any EEC country. This expansion financed 80 percent of the $1 billion increase in Italy's total imports. Moreover, our simulation shows over $950 million in net trade created for Italy. Thus, the results suggest a substantial welfare improvement for Italy as a result of the formation of the EEC. The major trade balance improvement, amounting to almost $2 billion, is for Germany. If one accepts these estimates, it is not difficult to understand why there were pressures even from within the EEC in 1969 and 1971 for a relative appreciation of the Deutsch mark.

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19. The negative impact on the trade balance of the EFTA countries is, of course, the result of the formation of the EEC, which they could do nothing about after 1958.

Finally, the results show a dramatic $1.8 billion decline in imports from the rest of the world as a result of the formation of the two discriminating trade blocs. Based upon the United States share of imports by each of the ten countries from the rest of the world in 1958, the decline of imports from the U.S. was over $400 million.

III. Prospective Policy Simulations

All the results presented in this section are in terms of changes in the predicted pattern of trade at the end of 1968 after the Dillon Round tariff reductions and the completion of the tariff changes accompanying the formation of the EEC and EFTA had been taken into account.[20] We examine, first, how the completed Kennedy Round reductions by the ten EEC and EFTA countries of tariffs on imports from non-members of the two trade blocs alters the 1968 pattern of trade.[21] We next look at how the enlargement of the EEC by the entry of Denmark and the United Kingdom and the establishment of broad European free trade and changes the post-Kennedy Round pattern of trade.

A. The Kennedy Round

As a result of the Kennedy Round of tariff negotiations, the ten EEC and EFTA countries agreed to reduce their tariffs on imports

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20. Since normal methods of testing the statistical realiability of the predictions cannot be used because of the non-linear form of the underlying estimated model, we have not attempted to make a complicated qualification as to their reliability. Note that inter alia we ignore changes in exchange rates which occurred in 1969 for the Deutsche mark and the French franc and for all the European countries in 1971-1973.

21. Although for most countries in the model the first Kennedy Round tariff reductions were implemented on July 1, 1968, these were not reflected in the estimation of the model.

from non-members by 28 to 38 percent over a period of five years; see Table 1. Our estimates of how these tariff changes would affect the imports of each of the ten countries in the model are summarized in Table 5. For the ten countries combined, the results show a three percent increase in 1968 imports over the predicted pattern of 1968 imports after the formation of the two blocs.

Imports from the countries that are not members of the relevant trade bloc increase uniformly; the percentage increase in EEC imports from the EFTA countries is particularly dramatic. Imports from partners in the two trade blocs generally decline. As a result of the Kennedy Round tariff reductions by the EEC countries, the EFTA countries make up over 60 percent of their lost exports from the EEC's formation.

The $1.9 billion increase in imports by the two blocs from the rest of the world just about equals the trade diverted by their formation. Presumably this balance was accompanied by increased imports from the two blocs by the rest of the world, since the Kennedy Round reductions in tariffs were reciprocal.

B. The Enlargement of the EEC

According to the treaties signed on January 22, 1972, Denmark, Norway and the United Kingdom along with Ireland (the last country is not included in our model) originally planned to join the EEC on January 1, 1973. On July 22, 1972, association treaties were signed or initialed with the six EFTA non-candidates (Finland, Iceland, Portugal, Switzerland,

Table 5 -- Summary of the Effects of the Kennedy Round of Tariff Reductions by the EEC and EFTA Countries in Terms of 1968 Trade (millions of U.S. dollars, 1968 prices)

Exporting Country Group	Change in Imports by[a]			Change in the Trade Balance[c]
	EEC	EFTA	Total[b]	
1. EEC	-427	368	-59	-1,828
	(-2)	(5)	(-0)	(-3)
2. EFTA	770	-139	632	-32
	(12)	(-3)	(6)	(-0)
3. Rest of the World	1,426	433	1,860	1,860
	(6)	(4)	(5)	
4. World, Total[d]	1,770	663	2,433	0
	(3)	(3)	(3)	

[a] A positive (negative) figure indicates an increase (decrease) in 1968 imports over what they were predicted to be with the complete tariff changes accompanying the formation of the EEC and EFTA and the Dillon Round of tariff reductions. The figures in parentheses express these estimated effects as percentages of the predicted 1968 trade levels with the completed Dillon Round, EEC and EFTA tariff adjustments of 1958 to 1968.

[b] Sum of the changes for the EEC and EFTA countries, except for rounding.

[c] Difference between the change in total exports measured from the import side in the previous column and the change in total imports given in line 4, ignoring the change in exports to or imports by the rest of the world. The figures in parentheses for the EEC and EFTA lines express the estimates as a percentage of predicted 1968 total imports as described in footnote a above.

[d] Sum of the first three lines except for rounding.

Austria and Sweden--only the last two countries are included in our model) establishing an industrial free trade area with the EEC. Except for a few sensitive products, these treaties projected the recipircal abolition of tariffs on non-food imports between the EFTA non-candidates and the original six EEC countries starting on April 1, 1973. There will be no adjustment in the EFTA non-candidates' tariffs on imports from the rest of the world. In the meantime, Norway rejected EEC membership in a national referendum on September 25, 1972. On May 14, 1973, Norway signed a free trade treaty similar to those for the other EFTA non-candidates.

The simulation results presented in Table 6 summarize the predicted impact in terms of 1968 prices and patterns of trade of the tariff charges accompanying the enlargement of the Community and the creation of a broad European free trade area. In the simulations, the original EEC countries abolish their tariffs on imports from the two new members and those on imports from the three EFTA non-candidates included in the model. These five original members of the EFTA reciprocate. Meanwhile Denmark and the United Kingdom adjust their national tariffs on imports from the rest of the world to the EEC's post-Kennedy Round common external tariff, see Table 1.

Table 6 -- Summary of the Effects in Terms of 1968 Trade of the Tariff Changes Accompanying the Enlargement of the EEC and the Establishment of Free Trade with the EFTA Non-Candidates (millions of U.S. dollars, 1968 prices)

Exporting Country Group	Changes in Imports by: EEC (6)	New EEC Members[b]	Non-Candidates EFTA Countries[c]	Total[d]	Change in the Trade Balance[e]
1. EEC (6)	-498 (-2)	421 (12)	301 (8)	224 (1)	-322 (-1)
2. New EEC Members[b]	892 (24)	30 (5)	-99 (-6)	823 (13)	476 (3)
3. Non-Candidates EFTA Countries[c]	590 (21)	-11 (-1)	-25 (-3)	554 (10)	377 (4)
4. Rest of the World	-438 (-2)	-93 (-1)	0 (0)	-531 (-2)	-531
5. World, Total[f]	546 (1)	347 (2)	177 (2)	1,070 (1)	0

[a]A positive (negative) figure indicates an increase (decrease) in 1968 imports over what they were predicted to be with the completed Dillon and Kennedy Round tariff reductions and the EEC and EFTA adjustments through 1968. The figures in parentheses express these estimated effects as percentages of the predicted 1968 trade levels with the completed Dillon Round, EEC and EFTA tariff adjustments of 1958 to 1968.

[b]Denmark and the United Kingdom.

[c]Austria, Norway and Sweden.

[d]Sum of the first three columns, except for rounding.

[e]Difference between the change in total exports measured from the import side in the previous column and the change in total imports given in line 5, assuming no change in exports to or imports by the rest of the world. The figures in parentheses for the first three lines express the estimates as a percentage of predicted 1968 total imports as described in footnote a above.

[f]Sum of the first four lines, except for rounding.

The results of the simulations show, as expected, a reduction in intra-bloc trade and an expansion of inter-bloc trade.[22] The percentage expansion in imports from the five original EFTA countries by the original EEC countries exceeds the predicted percentage expansion in EEC exports to these countries. This reflects, in part, the offset of the EEC's advantage due to the reduction in the U.K. tariffs on imports from the rest of the world; see Table 1. The aggregate percentage reduction in intra-EFTA trade is slightly greater than that in intra-EEC trade.

The enlargement of the EEC shows $1.1 billion in gross trade created (an increase in total imports) for the ten countries in the simulations; see column (6) of Table 4. Because the enlargement of the European Community comes on top of the formation of the two discriminating trade blocs, we can ignore the declines in imports from partner countries and focus upon the $500 million decrease in imports from the rest of the world as the value of trade diverted; see column (7) of Table 4. On this basis there is net trade created for each bloc and net trade diverted only for France and Denmark; see column (8) of Table 4.

One might argue that the net trade diverted resulting from the formation of the two competing trade blocs in the late 1950s was the price which had to be paid for the eventual unification of

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22. The increase in trade between Denmark and the U.K. reflects a positive spillover effect on imports from the U.K. from the reduction in Danish imports from the rest of the world; see footnote 11.

Western Europe on a broader scale. As can be seen from the last three columns of Table 4, the two intergration phases combined produce over $3 billion in gross trade created and $500 million in net trade created.

There is some deterioration in the trade balance for each of the original EEC countries from enlargement (Table 6), although except for Italy the net impact on the trade balances of formation and enlargement is positive. For the EFTA countries as a group there is a sufficient improvement in trade balances from the linkage with the EEC to wipe out the deterioration associated with the formation of the two blocs. But there is some variation among the EFTA countries: Austria and Norway continue to show a net deterioration; the net impact on the United Kingdom's trade balance is negligible; and there is a net improvement for Denmark and Sweden. It is interesting to note in light of the Norwegian decision on entry that Norway's trade balance improvement in percentage terms is the smallest of the EFTA countries--less than .25 percent of its 1968 imports.

Not surprisingly, total imports from the rest of the world decline as a result of an enlarged EEC, by over half a billion dollars. Using the 1968 U.S. share of each countries' imports from the rest of the world, imports from the United States decline by over $125 million.

Much of the recent debate about the enlargement of the EEC has taken place in the United Kingdom and, because of British post-war balance-of-payments difficulties, the debate has centered on the

impact of entry on the balance of trade. Our results show that the United Kingdom's trade balance improves by $430 million as a result of entry.[23]

Our results do not agree with those published by the past two British governments (Comd. 4289, 1970; Comd. 4715, 1971) which show at best a small deterioration in the United Kingdom's non-food trade balance.[24] We should, however, offer several qualifications to

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23. Moreover, the increase in total imports (trade created) of $350 million is offset by only $50 million in trade diverted from the rest of the world, yielding net trade created equal to 2.5 per cent of the base 1968 imports. This calculation ignores the elimination of trade diverted to partners from the initial formation of EFTA. The reader should be warned that the simulation results for any particular country are probably less reliable than those for larger groupings since the model was not in general designed to reflect the special characteristics of any individual importing or exporting country's situation.

24. The 1970 White Paper estimated a deterioration in the U.K. non-food trade balance of between $300 and $660 million on the basis of projected trade levels in the mid-1970s. Since our results are based upon the 1968 pattern of trade, they probably understate the net impact on United Kingdom trade in the mid-1970s; but we feel that it would be unwise if not impossible to make our estimates strictly comparable with those in the White Paper. At least half of the deterioration estimated in the White Paper, however, reflected the expected impact of increases in United Kingdom export prices due to a wage-price spiral associated with the United Kingdom's adoption of the EEC's common agricultural policy and tax system. Revised estimates correcting for this factor suggest a deterioration of between $80 and $140 million (Miller, 1971). The 1971 White Paper did not give a precise figure for the impact of entry on the non-feed trade balance; it was only asserted that dynamic effects would offset any expected deterioration caused by the static effects of the tariff changes. We, of course, ignore the more substantial projected balance-of-payments deterioration associated with British entry arising from trade in food and contributions to the Community's budget (Miller, 1971).

our results for the United Kingdom. First, as noted in footnote 22, the simulation yields an increase in Danish imports from the United Kingdom as a result of entry. Second, we have ignored the impact of entry on United Kingdom exports to the EFTA countries not included in our model (particularly Switzerland) and to the Commonwealth (due to the loss of Commonwealth preferences). If we assume that Danish imports from the United Kingdom decline by five percent of their predicted 1968 level instead of rising by eight percent as predicted by the model and United Kingdom exports to Switzerland and the Commonwealth also decline by five percent (a total adjustment of $242 million), the improvement in the United Kingdom's trade balance would be reduced to $165 million. On the other hand, on top of the Danish and Swiss adjustments it would require more than a ten percent drop in United Kingdom exports to the Commonwealth, purely as a result of entry, to drive the impact on the United Kingdom's non-food trade balance to zero.

Appendix

The Simulation Procedure

The following procedure was used in conducting the policy simulations. First, for the basic trade matrix of each importing country, the relevant price vector including tariffs and the vector after adjustment for the tariff change under consideration were computed using the 1958 trade weights employed in constructing the original 1968 export price indexes. Second, the model was simulated for each vector starting with the total import equations. After the calculations were complete, the estimated levels of total imports were multiplied by the estimated shares from the rest of the model. The difference between the two predicted trade matrixes was then computed as the estimate of the impact of the tariff changes under examination.[1/]

This procedure ensures that the change in total imports by each country is allocated among the alternative sources of supply along with the reallocations based upon the changes in shares. Therefore, although we say in the text tables that the sum of the changes in imports from each source equals the change in total imports, the computation was carried out the other way around. The initial calculations were made from changes in imports in real terms, 1958 prices. The estimated change in real trade between each pair of countries was then multiplied by the 1968 price index of the exporting country and these elements were then recombined to form the subtotals and totals which appear in the text and tables.

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1. Analytically, this is the same as taking the total differential of the import matrix with respect of the tariff change under consideration.

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