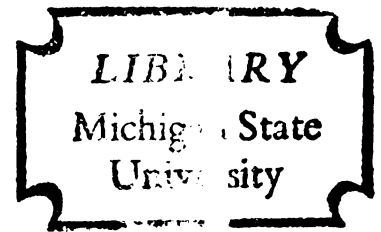


THE EFFECTS OF THE EEC ON
EAST - WEST TRADE

Thesis for the Degree of Ph. D.
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This is to certify that the

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*The Effects of the EEC on
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Anthony G. Koo

Major professor

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ABSTRACT

THE EFFECTS OF THE EEC ON EAST-WEST TRADE

By

Willy Sellekaerts

This thesis is a study of the trade expanding and diverting effects of the EEC on her members' imports from the Communist Countries of Eastern Europe.

The economic, political and ideological framework of East-West trade is briefly explained. A short discussion of some conceptual problems, related to the measurement of the effect of a customs union, is followed by a review of the theory of customs unions and a survey of previous empirical research on the effects of the EEC.

Two models are presented, measuring the effect of the EEC on her extra-area suppliers. The relative share model separates a Common Market effect, a competitive effect, a price effect and a total effect. The linear regression model measures the global effect of the EEC on her extra-area suppliers.

The empirical results based on the relative share model and the results of the linear regression model indicate that Romania, Bulgaria, Yugoslavia, Albania, Hungary, the GDR and

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Poland shared in the extra-area trade expanding effect of the EEC. The USSR and Czechoslovakia, on the contrary, suffered from trade diversion. As a group, the Communist Countries of Eastern Europe were favorably affected by the formation of the EEC.

THE EFFECTS OF THE EEC ON EAST-WEST TRADE

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Willy Sellekaerts

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INTRODUCTION AND STATEMENT OF THE PROBLEM

INTRODUCTION

East-West trade can be defined as the trade between communist and capitalist countries; as trade between countries with different political, ideological and economic systems. Private producers of market economies exchange commodities with state owned foreign trade monopolies and, occasionally, with individual firms of centrally planned economies.¹ Both political and economic factors influence the trade flows between the countries of the two systems. During the heat of the "Cold War", in the late 1940's and early 1950's, the political factors were dominating East-West trade but, since the mid 1950's, economic factors are increasing in importance. Both businessmen and central planners are, in the first place, interested in the gains from trade.

After the Second World War, the USSR rapidly gained military and economic strength. The expansion of the Soviet power in Eastern Europe and the Berlin Blockade created political tension between the two major world powers.

In 1948, as a weapon in the Cold War, the United States decided to license her exports to the communist countries.² Since 1948, export licenses have been refused for all "strategic materials", or materials of "indirect strategic" importance. The purpose of these measures was to slow down the USSR in the armament race and, indirectly, in her economic development. The "Export Control Law" of

1949 and the "Mutual Defense Control Act" of 1951 (also called the "Battle Act") formed the legal framework within which the United States controlled her trade with communist countries.³ The United States' trade with Communist China, Cuba, North Korea and North Vietnam, was embargoed under the "Trade with the Enemy Act".⁴

In 1949, as a consequence of the Berlin Blockade, the United States persuaded her European allies not to export "strategic materials" to communist countries. Members of NATO, in a Consultative Group (C.G.) and a Coordinating Committee (COCOM), established three separate lists restricting East-West trade: an embargo list, a quantitative control list and a surveillance list.⁵ The content of these lists was often changed, depending on the state of the Cold War, on the estimates made of the communist countries' changing vulnerability, and on the strength of the "laissez-faire" forces in the capitalist countries.⁶

Since the mid 1950's, the Western European countries have changed their position toward the strategic embargo. Lack of agreement on the "strategic importance" of the items to be included on the list caused frictions among the Western European countries and between these countries and the United States. Both the members of the European Economic Community (EEC) and the European Free Trade Association (EFTA) have expanded their trade with all communist countries and especially with the communist countries of Eastern Europe.⁷ Although the embargo policy has inflicted a real cost upon the USSR and her allies, it is now clear that the USSR has been able to achieve a strong military posture and an acceleration in her

economic development, in spite of the strategic embargo, and that the capitalist countries have lost profitable trade opportunities.⁸ It is now generally accepted that international economic relations between two different political and economic systems can bring all participating nations closer together.

Originally, East-West trade had not been reduced below its potential or natural level by the United States and her allies, but rather by the Soviet leaders. The foreign trade of the USSR with market economies fell considerably after the October Revolution in 1917.⁹ The Soviet leaders favored autarky for three reasons: first, to speed up, at any cost, a structural change in the economy in favor of industrialization; secondly, to avoid excessive dependence on imports of strategic materials from capitalist countries; and thirdly, to avoid that business cycles be transferred from the market economies to the centrally-planned economy, which was considered free of economic fluctuations.

Stalin developed a theory of "parallel markets", in which he expressed the idea that he could undermine the economies of the capitalist countries by closing the markets of the communist countries to the exports of the capitalist producers.¹⁰ As a result of Stalin's policy, the imports of Western Europe from Eastern Europe in 1948 were merely 34% of their level in 1938, while in the same year, the imports of Eastern Europe from Western Europe only reached 42% of their level in 1938.¹¹

After Stalin's death in 1953, the Soviet leaders recognized the need to trade with the market economies, and since the mid 1950's,

trade between the centrally planned economies of Eastern Europe and the market economies of Western Europe have expanded at a faster rate than world trade.¹² In addition to the reduction in political tension, there were several economic reasons for this change in Soviet policy.

To take advantage of the technological gap between the advanced economies of Western Europe and the developing economies of Eastern Europe, and because of the central planners' preferences favoring industrial production, the Eastern European communist countries increased their imports, from Western Europe, of machinery embodying the latest technology.

The communist countries are often interested in manufactured products imported from Western Europe and other capitalist countries rather than in similar products of the members of COMECON, because the products of the market economies are of better quality, higher technological parameters, more esthetic design, and are delivered more promptly than those of their partners in COMECON.¹³

Imports of Western products by communist countries are also important to balance the demand and the supply of scarce domestic resources. During the plan construction, the central planners either receive output targets and their relative priorities from the political authorities or they derive this information from the official speeches of the Soviet leaders. By means of the method of material balances, the planners then equate sources and uses of raw materials, intermediate and final products.¹⁴ To meet the targets

in the high priority sectors, the planners can either re-channel resources from the "buffer sectors" to the high priority sectors or import resources. Exports are planned to maximize the amount of foreign exchange under the constraint that the resources employed in their production add less to the output in the priority sectors than the imports for which the exported products will be exchanged. Exports are considered a necessary evil and in years when the export earnings do not cover the expenditures on imports, the USSR exports gold instead. Gold is only exported because of the sheer lack of exportables.¹⁵ Since the mid 1950's, the former "buffer sectors": agriculture, the consumer sector and residential construction, developed slowly into semi-priority sectors which placed upon imports more of the burden to balance sources and uses of materials, of machinery, of manufactured products and, in years of harvest failure, of agricultural products.¹⁶

Considering her wide resource base and the size of her domestic market, the USSR can more realistically adhere to a policy of autarky than the smaller communist countries of Eastern Europe, whose foreign trade sector ranges from 20% to 40% of gross national products, as compared with 3% to 4% in the USSR. Prior to the Second World War, the USSR had successfully practiced a policy of autarky, but in the early 1950's, she was forced to be the trading partner of the other members of COMECON.

The smaller partners of COMECON exported machinery and manufactured products to the USSR in exchange for raw materials. They themselves needed specialized machinery to achieve the ambitious

targets in their own industrialization plans. Because of the weakness of the USSR as a trading partner for the other COMECON members, and because of other problems with economic integration in COMECON, both the USSR and the other communist countries of Eastern Europe were eager to expand trade with the capitalist economies and especially with the Western European countries.¹⁷

Consequently, trade between the members of COMECON and Western Europe was expanding fast during the mid 1950's. At the same time, the idea of European economic integration was born in Western Europe. The United States, hoping to strengthen NATO, gave her support to any form of economic and political unification of the Western European countries. The USSR was especially concerned that the European economic integration, of which the EEC was the most advanced form, would change the balance of power in favor of the NATO members. Therefore, the first Soviet reaction to the formation of the EEC was extremely unfavorable.¹⁸ The official statements of the communist ideologists and political leaders were mainly concerned with politics, ideology and strategy, and little was said about the economic effects of the EEC on the exports of the members of COMECON.¹⁹ Western economists and EEC officials have made some statements on the economic effects of the EEC on East-West trade. Although these statements are not always supported by empirical studies, they give a preliminary idea of the problems involved and are a guide to design a method of analysis.

In June 1962, Alec Nove, writing on "The USSR and the EEC" in

The Spectator, gave the following statement:

"The Soviet Union is against the Common Market,... Both political and economic grounds for opposition are very strong. The economic objections are precisely the same, in principle, as those advanced by any country which is outside the proposed trading group... The Soviet Union too, will find it harder to sell its goods... The same is even more true of the other communist countries, almost all of whose exports are affected by competition from West European producers. This would be all the more awkward since the countries of the Soviet bloc are in urgent need of foreign currency to finance an ambitious import program." 20

Speaking in Brussels, on July 6, 1962, E. M. Bolasco, director of the division dealing with East European countries on the Common Market Executive Commission, declared:

"In the economic field the Soviet Union has nothing to fear from the Common Market, since her exports to the latter are chiefly raw materials and duties on these commodities will be negligible in the common external tariff that is being built around the Common Market. On the contrary, the People's Democracies which export mainly agricultural and industrial products, fear an adverse effect on their trade with the EEC countries." 21

In 1963, Stanislas Zdiechowski, writing on the "Impact of the Common Market on the Soviet Union", shared the fears of the communist countries of Eastern Europe that the EEC would adversely affect the exports of the COMECON partners to the Common Market. He expressed his opinion as follows:

"This fear is justified, and based, not as in the case of the Soviet Union, on political factors, but on economic considerations. The agricultural policy of the Common Market, with its raising of tariffs on imports, is bound to hurt the East European countries, particularly Poland and Czechoslovakia." 22

It is clear from the previous statements, that the exports of each communist country will be differently affected by the EEC and more specifically, one can expect that the exports of Poland and Czechoslovakia will be affected unfavorably, compared with the USSR's exports, because of the difference in the commodity mix of these countries' exports to the EEC. It will therefore be necessary to study the effects of the EEC, as a customs union, on the exports of each communist country of Eastern Europe separately. The total exports will have to be broken down into several commodity groups, because differences in the export commodity mix of the communist countries explain why each country's exports are differently affected by the formation of the EEC. The importance of this inquiry can be deduced from Nove's statement and has also been clearly observed by J. P. de Gara.²³ The communist countries of Eastern Europe need the industrial products and machinery of the EEC for their economic development. Therefore, a loss of export earnings in hard currency would reduce the import capacity of the Eastern European countries, which would slow down their economic development, make them more economically dependent on the USSR and the other members of COMECON, and create ill feelings against the Western European countries, particularly, the members of the EEC. The problem may even be bigger if the communist countries of Eastern Europe try to earn hard currency in other capitalist countries and realize that these countries have less liberal export policies than the EEC for machinery, industrial products, and some raw materials such as copper. These

adverse indirect effects of the EEC on the economic development of her European neighbors would have been regrettable, especially during the last decade of peaceful coexistence in which some communist countries of Eastern Europe decided to loosen their political and economic ties with the USSR.

STATEMENT OF THE PROBLEM:

The importance of this inquiry into the effects of the EEC on her members' imports from the communist countries of Eastern Europe is explained in the introduction and relates to the economic and political independence of the communist countries of Eastern Europe vis-a-vis the USSR. It is not the purpose of this thesis to prove or disprove the theory of economic and political independence, but rather to measure the effects of the EEC on the exports of the communist countries of Eastern Europe.

Although the Treaty of Rome was signed in 1957, it was only in 1959 that the EEC was actually operative. The EEC is a further developed form of economic integration than a customs union. In a customs union, the member countries agree to gradually reduce and finally eliminate the tariffs on each others' products, while they accept a common external tariff on their imports from all extra-area suppliers. In addition to free movement of commodities between the member countries, the EEC promotes free mobility of capital, labor and other resources. It is to be expected, therefore, that the creation of the EEC not only changed the internal and external

tariffs of the members but also induced changes in relative prices of most commodities, changes in existing market structures, changes in the application of new technology, changes in profit wages and in interest rates. In general, one can say that the formation of the EEC caused major structural changes in the economies of the member countries.

Most economic theories are based on partial equilibrium analysis and on the method of comparative statics. In partial equilibrium analysis one market or a sector of a larger model is studied separately, assuming that the other parts of the economy are in equilibrium. With the method of comparative statics, the economist studies economic variables in a position of rest. He starts from a model representing a market or an economy in equilibrium, then assumes a change in a variable or parameter of the model, and subsequently studies the new position of rest which the variables have obtained. In this method, the economist does not trace the path of the variables from one equilibrium to another but studies only the initial and the final equilibrium positions as if no time was needed for the variables to reach this new position of rest. Most of the traditional theoretical models in price theory, the pure theory of trade and the theory of customs unions, are based on partial equilibrium analysis and on the method of comparative statics. The method of comparative statics is fully satisfactory to study the effect of the EEC on the economy of her members.²⁴ However, one can say that the traditional partial equilibrium models are not well

equipped to measure a major structural change in an economy such as the one caused in the economies of the member countries by the formation of the EEC.²⁵

Ideally, a study of the total effect of the EEC, which includes both static and dynamic effects, on her extra-area suppliers, requires the knowledge of the structure of the economies of the member countries prior to and after the formation of the EEC. Under certain restrictive assumptions (or additional transformation) the change in the economic structure can then be attributed to the formation of the EEC. Finally, the effects of the structural change on the flows of the extra-area imports of the member countries can be computed.

Representing the structure of an EEC country prior to 1958 by matrix A and the structure of the same country after 1958 by matrix B, one can then write that $T A = B$ where T is a transformation, representing the structural change which occurred in this economy in the post-integration period, relative to the pre-integration period.²⁶

Two questions must now be answered:

1. Is the transformation T unique?
2. (Assuming that T is unique) is the formation of the EEC the only structural change which occurred in 1958?

The first question can be answered by changing the year which separates (dichotomizes) the periods for which the matrices A and B are being compared. It would be possible, for example, to verify

whether in the following relationships:

$$\begin{array}{ll} T_1 A_1 = B_1 & \text{where } A_1 = \text{before 1950} \\ & \text{where } B_1 = \text{after 1950} \\ T_2 A_2 = B_2 & \text{where } A_2 = \text{before 1954} \\ & \text{where } B_2 = \text{after 1954} \\ T_3 A_3 = B_3 & \text{where } A_3 = \text{before 1962} \\ & \text{where } B_3 = \text{after 1962} \\ T_4 A_4 = B_4 & \text{where } A_4 = \text{before 1966} \\ & \text{where } B_4 = \text{after 1966} \end{array}$$

$T_1, \dots, T_4$ are significantly different from T .

If the transformator T is not significantly different from the other transformers, $T_1, \dots, T_4$, T cannot be called unique and it is impossible to assert that T measures the effect of the EEC. Although the uniqueness of T is a necessary condition in applying this general method, it is not a sufficient one. Transformator T will measure the effect of the EEC only if, in addition to being unique in the above sense, it can be demonstrated that in 1958 (or a given period 1957-1959) the formation of the EEC was the only major structural change which occurred in the economies of the Western European countries which are members of the EEC.²⁷

It is feasible to use input-output tables of the members of the EEC to form matrices A and B , measuring the economic structure of these countries prior to and after the formation of the EEC. Changes in their extra-area demand for imports can be measured in a similar way. However, in order to test the uniqueness of the trans-

formator T , one needs several input-output matrices for each country to derive A_1B_1 , A_2B_2 , A_3B_3 , and A_4B_4 for example.

Input-output tables are not constructed at sufficiently short intervals to verify the uniqueness of T . However, if input-output tables were available at sufficiently short intervals it might be possible to find a trend in the transformers (L) for periods prior to the economic integration. If T is sufficiently different from $T_1, \dots, T_4$ and if L is known, one can form either $T - L$ or LT such that:

$LT = T_{adj}$ where T_{adj} is the new adjusted transformator which has been derived from T by filtering out of T the long run structural changes L which slightly deformed the matrices representing the structures of the economies of the EEC prior to the integration.

T_{adj} could then be called the net effect of the EEC, or the structural change in the economies of the members caused by the formation of the EEC.

However, if L cannot be formed because only two input-output tables are available, one for the pre-integration and one for the Post-integration period, then T cannot be tested for uniqueness. Indeed, during the 1950's, US foreign aid affected Western European economic reconstruction and short-term indicative planning copied from the French and Dutch examples was adopted in most Common Market countries after the formation of the EEC. In addition, the general convertibility of the currencies of the European countries occurred virtually simultaneously with the formation of the EEC.

But even if L is formed and T_{adj} can be constructed, then one

has only fulfilled the necessary conditions for T_{adj} to express the effect of the EEC. Indeed, it has to be demonstrated that the EEC was the only major structural change which occurred in the EEC countries in the late 1950's. It has previously been said that the convertibility of the currency was another structural change in the EEC countries which occurred in the same period as the formation of the EEC.

If this method is chosen, and if data on the structures of the economies of the EEC countries are available to form A, B and T, but if the data are not available in sufficient close intervals to find L and therefore T_{adj} , then we cannot prove the uniqueness of the transformator T_{adj} . In that case, simplifying assumptions have to be made concerning T.

- 1) that T is unique;
- 2) that the EEC is the only major structural change which occurred in 1958. This reduces to a large extent the attractiveness of input-output analysis as a powerful tool to measure the effect of the EEC. Other methods, based on the same simplifying assumptions namely, that the formation of the EEC is the most important or single cause of a structural change in the economies of the member countries, have substantial advantages to input-output Models:

- 1) they are simple
- 2) they require less data
- 3) they provide an opportunity to separate several different

effects of the EEC.

However, they have the major shortcoming that they are based on partial economic analysis.

Both the relative share model and the linear regression model which will be developed in this thesis (Chapter II) belong to this category of simple models.

The major problems related to the study of the effect of the EEC on her members' imports from extra-area suppliers have been outlined. To find a satisfactory solution to the problem, a framework of analysis was developed. This framework includes a review of the theory of customs unions, an evaluation of early empirical studies, a presentation of a method to compute import figures in constant prices and finally, the presentation of two models measuring the effect of the EEC on her members' imports from extra-area suppliers.

Since the second World War and especially since the mid 1950's, economists have created a theory of economic integration which has mainly developed into a theory of customs unions. Although the EEC is mainly a custom union, it should rather be considered a more advanced form of economic integration. A review of the theory of customs unions will be presented in Chapter I.

Although the theory of customs unions is well developed, there exist few satisfactory models to measure empirically the effect of the EEC on her members' imports from an individual extra-area supplier. The major problems encountered by the design of such models will be explained in the final part of Chapter I.

Because of lack of data, two simple models, a relative share model and a linear regression model, will be presented in Chapter II. The data, which were needed to estimate the parameters of the models were computed on the basis of the method explained in detail in appendix B.

The empirical results of the relative share model are presented in Chapter III, while the results of the linear regression model are summarized in Chapter IV.

A summary of the results, proposed modifications of the models and suggestions for further research are presented in Chapter V.

FOOTNOTES

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³U.S., Congress, Senate, East-West Trade, "Hearings before the Committee on Foreign Relation", U.S. Senate, Part I, March and April 1964 (Washington, 1964), p. 77.

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⁴Nicolas Spulber, "East-West Trade and the Paradoxes of the Strategic Embargo", International Trade and Central Planning, ed. Alan A. Brown and Egon Neuberger (Berkeley: University of California Press, 1968), p. 110.

⁵Ibid., p. 108.

⁶For a breakdown of the list see: Robert Oakeshott, "The Strategic Embargo: An Obstacle to East-West Trade", The World Today, XIX (June, 1963), 243.

⁷J. Wilczynski, "Strategic Embargo in Perspective", Soviet Studies, XIX (July, 1967), 86.

⁸Robert L. Allen, "U.S. Policy Toward East-West Trade", East-West Trade, A Compilation of Views of Businessmen, Bankers, and Academic Experts, Committee on Foreign Relations, U.S. Senate, 88th Congress, 2nd Session (Washington, November 1964), p. 217.

⁹The following table gives an indication of the evolution of Soviet foreign trade since 1913.

Quantity index of Soviet foreign trade, 1938 = 100

Year	Q. index	Year	Q. index
1913	365.74	1936	142.59
1920	10.19	1937	132.41
1922	27.78	1938	100.00
1927	105.56	1946	128.00
1929	148.15	1950	278.00
1930	225.93	1955	500.00
1931	235.19	1958	692.00
1932	187.96	1959	870.00
1933	176.85		
1934	169.45		
1935	171.30		

Source: Office Suisse d'Expansion Commerciale, Lausanne Rapport Spécial no. 43, Série A, Avril 1944, "Le Commerce extérieur de l'URSA", p. 1-94.

¹⁰J. Stalin, "Economic Problems of Socialism in the USSR", Bolshevik, XXIX (September, 1952), 1-50.

¹¹United Nations, Economic Commission for Europe, Economic Bulletin for Europe, Vol. I, 1949, p. 27.

¹²This is naturally the result of the low level of East-West trade prior to 1953.

¹³Ota Šik, "On the Economic Problems in Czechoslovakia", U.S. Senate, Hearings, Subcommittee on Antitrust and Monopoly, 19th Congress, 2nd Session, 1969, p. 4515.

¹⁴J. M. Montias, "Planning with Material Balances in Soviet-Type Economies", American Economic Review, XLIX (December, 1959), 963-985.

¹⁵Keith Bush, "Soviet Gold Production and Reserves Reconsidered", Soviet Studies, XVII (April, 1966), 490-493.

Economic Bulletin for Europe, Geneva, no. 1, 1961, p. 29.

¹⁶A Round Table Discussion (A. Bergson, A. Ehrlich, H. S. Levine, G. W. Nutter, A. Wellisz), Soviet Economic Performance and Reform: Some Problems of Analysis and Prognosis, Slavic Review, XXV (June, 1966), 231.

¹⁷ Czechoslovakia, for example, has been called the workshop of the USSR.

Vaclav Holesovsky, "Planning Reforms in Czechoslovakia", Soviet Studies, XIX (April, 1968), 544-556.

¹⁸ David F. P. Forte, "The Response of Soviet Foreign Policy to the Common Market, 1957-1963", Soviet Studies, XIX (January, 1968), 373-386.

Bernard Dutoit, "L'Union Soviétique Face à l'Intégration Européenne", II^e Partie, L'Ideologie Soviétique et l'Intégration Européenne, (Lausanne: Université de Lausanne, Centre de Recherches Européennes, 1964).

¹⁹ Ibid.

²⁰ Alec Nove, "The USSR and the EEC", Spectator, 208 (June, 1962), 744-745.

²¹ E. M. Bolasco, The New York Times, July 7, 1962.

²² Stanislas Zdziechowski, "The Impact of the Common Market on the Soviet Union", Studies on the Soviet Union, New Series, II, 4 (1963), p. 54.

²³ John P. de Gara, Trade Relations Between the Common Market and the Eastern Bloc, (Bruges: De Tempel, 1964), 60-61.

²⁴ Until recently, most models in the pure theory of international trade were static. In the last five years, however, several dynamic models have been developed.

²⁵ Walrasian general equilibrium analysis was a break with the old partial equilibrium approach in price theory. Modern general equilibrium analysis is the cornerstone of welfare economics. Leontief's input-output model is a form of general equilibrium analysis, which is well suited to study major structural changes in an economy such as the one caused by the formation of the EEC. W. Leontief, The Structure of the American Economy 1919-1939; an Empirical Application of Equilibrium Analysis, 2nd ed., New York, Oxford University Press, 1953.

²⁶ When A and B are square matrices of order n and if T is a linear transformation, then T is also a square matrix of order n.

²⁷ A variant of this method has been presented by J. Waelbroeck. Instead of considering changes in the structure of the economy of the EEC members, he measured whether the matrix of the EEC's imports from the rest of the world was significantly deformed in the post-

integration period relative to the pre-integration period. However, the uniqueness of this deformation was not established.

- J. Waelbroeck, "Le Commerce de la Communauté Européenne avec les Pays Tiers", in Intégration Européenne et Réalité Economique (Bruges, 1964), 139-164.

CHAPTER I

A BRIEF REVIEW OF THE THEORY OF CUSTOMS UNIONS, AND SOME EMPIR- ICAL STUDIES

The Theory of Customs Unions

The creation of a customs union causes a gradual reduction and final elimination of the tariffs between the members of the union and a unification in the external tariffs of the members vis-a-vis non-member countries, which is often an average of the existing tariffs of the member countries prior-to the formation of the union. Changes in relative prices cause substitution and income effects in consumption and production. In a member country, substitution takes place between the following categories of commodities:

- a) domestically produced and consumed products not entering foreign trade and exportables.¹
- b) between domestic exportables and the exportables of member countries.
- c) between the exportables of extra-area suppliers and domestic exportables.
- d) between the exportables of extra-area suppliers and the exportables of member countries.

Lipsey, for example, makes a distinction between inter-country

substitution and inter-commodity substitution. Historically, the literature in the pure theory of trade considers first, substitution in production and later, substitution in consumption.

Substitution in production

In his pioneer work, The Customs Union Issue, J. Viner demonstrated that in addition to the trade creating effects between the members of the union, the formulation of a customs union may cause a diversion of trade from low cost producers, outside the union, toward high cost producers inside the union. The overall effect on welfare, resulting from the re-allocation of resources is then the difference between the trade creating and trade diverting effects of the union.² Viner's analysis implicitly assumes that commodities are consumed in some fixed proportion, which is independent of the structure of relative prices.³ This assumption assures that the price elasticity for the demand of each product is zero.

Substitution in consumption

A customs union, changing relative prices, may also be expected to lead to substitution between commodities in consumption, insofar as more of the cheaper goods and less of the more expensive goods will be bought. The importance of the substitution effect in consumption has presumably been independently discovered by J. Meade, F. Gehrels and R. G. Lipsey.⁴ In his analysis of the consumption effect, J. Meade reversed Viner's assumptions. He assumed a fixed

pattern of production and hence a zero elasticity of supply.

Substitution in Consumption and Production

Vanek developed a simplified general equilibrium model, represented by an offer curve analysis, to demonstrate the effects of a customs union. He assumes both production and consumption to be variable and constructs excess offer curves for the two countries forming the union.⁵ This method shows also the effects of a customs union on the terms of trade. The static effects of a customs union can best be analyzed in a general equilibrium model. R. G. Lipsey and K. Lancaster studied the static effects of a customs union as an illustration of the general theory of the second best.⁶

The previous review is related to the static effects of a customs union, which include: trade creating, trade diverting and terms of trade effects. In addition to static effects, a customs union has also dynamic effects. The dynamic effects may be either in production, in consumption, or in both. Most dynamic effects of a customs union relate to the widening of the market for the producers in the member countries. Both internal and external economies will be created.

Some production techniques, fully automated equipment, better trained managers, high-quality technical personnel and expenditures on research and development are only profitable and hence feasible, if the firm can reach a minimum scale of operations, which is determined by the size of the market. It is therefore that a widen-

ing of the market of the firms in the smaller countries of the EEC is a necessary condition for the realization of internal economies.

To circumvent the EEC's external tariff wall, some U.S. corporations have built new plants in the EEC countries.⁷ These firms operate under advanced U.S. technology and modern managerial practices. The U.S. firms competed (and in some cases still compete) with smaller sized, privately owned European firms. This competition has stimulated a reorganization of the smaller firms into larger scale operations, under professional management and operating with outside capital. Although many cartels were formed, competition between the large corporations has increased. Both Scitowsky and Balassa predicted that a customs union would promote competition.⁸

A common market is more than a customs union, because capital and labor can move freely from one member of the union to another. Capital markets have been strengthened and labor shortages avoided by labor migration, which are external economies accruing to firms in the common market.

Both increased competition and free factor movements have enhanced the realization of an optimum allocation of resources.

Large corporations, in an oligopolistic market, do not so much compete in the market by undercutting their rivals' prices, but rather by means of product diversification, the production of new products as a result of their expenditures on research and development and, especially, by means of advertising.⁹ Consequently,

dynamic changes in consumption occur simultaneously with dynamic changes in production as artificial needs will be created, potential needs activated, and old tastes modified.

Another important factor which will create expansionary policies of enterprises is the reduction in uncertainty. Joint policies on duties, tariffs and quotas between all members stimulate certainty by exporters concerning the availability of the market of the members in the union. Joint action between governments on economic research, indicative planning and policies to stimulate business activities, all reduce the uncertainty of the businessmen about regular inflows of future net earnings. These dynamic changes will increase real income and output and cause secondary changes in relative prices; in addition there will be autonomous changes in relative prices, which would have occurred even if the union had not been created. It is virtually impossible to separate the primary induced changes in relative prices, caused by the changes in tariffs, from the secondary changes in relative prices, caused by dynamic effects, and it is even more difficult to separate the previous two types of changes in relative prices from the autonomous ones.

Presentday economic theory is not well equipped to deal with the dynamic effects of a customs union. To my knowledge, the best theoretic analysis is based on Harry Johnson's article: "Economic Expansion and International Trade".¹⁰ Because dynamic effects may stimulate growth of output and real income in the economies of the

members of the union, it is necessary to inquire whether this growth is pro- or anti-trade biased, in order to determine the dynamic effects of a customs union on the trade flows among the members and between the members of the union and non-members. This problem can be resolved by comparing the output elasticity of supply of exportables with the output elasticity of the demand for exportables.¹¹ The effects of growth on the demand side are considered neutral, if the output-elasticity of the demand for exportables (E_{DQ}) equals one. Similarly, growth is pro-trade biased if $E_{DQ} > 1$, and anti-trade biased if $E_{DQ} < 1$. The production effects of economic growth are neutral if the output elasticity of supply (E_{SQ}) equals one, while growth is pro-trade biased if $E_{SQ} < 1$ and anti-trade biased if $E_{SQ} > 1$. Both elasticities have to be considered jointly to determine the final effect of growth on international trade.¹²

Empirical Studies

On the basis of these theories, several empirical studies have been conducted to actually measure the effects of the EEC. Most researchers have been interested in the static effects, although attempts have been made to measure the dynamic effects.¹³ The models, measuring the static effects, can be divided in ex-ante and ex-post models. There are two types of ex-ante models: first, those which were built before the EEC was operative but with the aim to predict the effects of the EEC after the union was actually established; and secondly, the models constructed after the EEC was actually operative but with the aim to predict the future effects of the European Common Market. P. J. Verdoorn's model belongs to the first category of ex-ante models, while the models

of L. H. Janssen, L. B. Krause and W. S. Salant are ex-ante studies, published after the EEC was operative.¹⁴ In these models the authors had to solve two problems: first, to estimate the imports of the EEC countries, under the assumption that the EEC had not been established and, secondly, to estimate the EEC's imports, under the assumption that the EEC was operative. The ex-post models, on the contrary, cover a period in which the EEC was actually operative. The major problem in the ex-post models is to estimate imports of the EEC countries after the EEC was actually established, but under the assumption that the EEC had never been formed. The effect of the EEC is then the difference between the estimated imports of the member countries under the assumed absence of integration and their actual imports in the same year or period.

The ideal way to estimate the members' imports, under assumed absence of integration, is to select a group of countries, not included in the customs union, which had an identical economic structure in a given period prior-to the formation of the union. More specifically, this group of countries should have in common with the EEC countries the following characteristics:

- a) the same size and growth of the population (same labor force and market size).
- b) the same geographical cohesiveness.
- c) located in the immediate neighborhood of the members of the EEC.
- d) the same degree of dependability on foreign trade.
- e) the same infrastructure (banking system, legal system, etc...).

To summarize, the group of countries must be acceptable as a control group. In this control group, no major structural changes may occur after the customs union is formed in the other group of countries. After the formation of the customs union the differences in her imports and the imports of the control group are a measure of the effects of the union. Unfortunately, no group of countries in the neighborhood of the EEC has an economic structure which meets the requirements to qualify as a control group. The EFTA countries are a geographically heterogeneous group, while the EEC countries are clustered in the same geographical area. In addition, the EFTA countries will have experienced an EFTA effect, which disqualifies them as an untreated control group. In spite of these problems, Verdoorn and Meyer zu Schlochtern explained inter-commodity substitution in the imports of the EEC on the basis of three explanatory variables: the weighted average of internal and external tariff changes and an index of effective import demand. This index has been computed as an unweighted rate of change of imports in the United Kingdom, Sweden, Denmark and Switzerland, and supposedly represents the expansion of trade which would take place in the EEC countries in the absence of integration.¹⁵

J. Waelbroeck calculated the hypothetical imports of the EEC by extrapolating the world trade matrix of an earlier year (prior to the integration), under the assumption that the structure of world trade has remained unchanged.¹⁶ Based on a method measuring changes in input-output matrixes as an indication of structural

changes in the economy of a country, Waelbroeck finds that the EEC indeed has caused the deformation of the trade matrix, but he cannot conclude whether this deformation indicates either trade diversion or creation.¹⁷ Waelbroeck later includes gross national product and geographical distances in his model and concludes that intra-area trade creation is substantial, while there is no evidence of extra-area trade diversion.¹⁸ However, this method only considers total imports and, therefore, hides possible effects of the EEC on individual commodity groups and hence on specific suppliers of these commodities. The average income elasticities of the demand for imports and exports are calculated on the basis of cross-section data from all trading partners of the EEC. Income elasticities of import and export demand for agricultural products are mostly smaller than those for manufactured products. Insofar that the EEC has a sectoral distribution (percentage of agriculture, manufactures and services in gross national products), which is different from that of her trading partners, the estimated income elasticities of the demand for imports and exports of the EEC, calculated on the basis of cross-section data, will be biased.¹⁹

In the following Chapter, I will present two models to measure the effect of the EEC on her extra-area suppliers.

FOOTNOTES

¹The term exportables has been introduced in the international trade literature by J. Bhagwhati and indicates all commodities which enter international trade.

²Jacob Viner, The Customs Union Issue (New York: Carnegie Endowment for International Peace, 1950), pp. 43-44.

³R. G. Lipsey, "The Theory of Customs Unions: A General Survey", Economic Journal, LXX (September, 1960) 496-513.

⁴J. E. Meade, The Theory of Customs Unions (Amsterdam: North Holland Publishing Co., 1955) pp. 44-52.

- F. Gehrels, "Customs Unions from a Single Country Viewpoint", Review of Economic Studies, XXIV, no. 63, (1956-1957), 61-64.

- R. G. Lipsey, "The Theory of Customs Unions: Trade Diversion and Welfare", Economica, XXIV (February, 1957), 40-46.

⁵J. Vanek, International Trade: Theory and Economic Policy (Homewood, Illinois: R.D. Irwin, 1962), pp. 346-359.

⁶R. G. Lipsey and K. J. Lancaster, "The General Theory of the Second Best", Review of Economic Studies, XXIV, no. 63, (1956-1957), 11-32, in particular pp. 18-21.

⁷Bela Balassa, Trade Liberalization Among Industrial Countries, Objectives and Alternatives, (New York: McGraw-Hill Book Company, 1967), p. 125.

⁸Bela Balassa, The Theory of Economic Integration, (Homewood, Illinois: R.D. Irwin, 1961), pp. 164-165.

- Tibor Scitovsky, Economic Theory and Western European Integration (Stanford, California: Stanford University Press, 1958), pp. 19-48.

⁹K. J. Cohen and R. M. Cyert, The Theory of the Firm, (Englewood Cliffs, N.J.: Prentice-Hall, 1965), pp. 256-258.

- Nicolas Kaldor, "Economic Effects of Advertising on Selective Demand", Review of Economic Studies (1950-1951), 13.

¹⁰ Harry G. Johnson, "Economic Expansion and International Trade", in: International Trade and Economic Growth: Studies in Pure Theory (London, 1958), p. 65.

¹¹ G. M. Meier, International Trade and Development (New York, Harper and Row, 1963), p. 33.

¹² A synthesis is given in: M.O. Clement, et al, Theoretical Issues in International Economics (Boston: Houghton Mifflin Company, 1967), pp. 153-155.

¹³ E. Thorbecke, "Problems of Regional Integration, European Integration and the Pattern of World Trade", American Economic Review, Papers and Proceedings, LIII (May, 1963), 173.

¹⁴ P. J. Verdoorn, "A Customs Union for Western Europe - Advantages and Feasibility", World Politics, (July, 1954) 482-500.

- L. H. Janssen, Free Trade, Protection and Customs Union (Leiden: H. E. Stenfert Kroese, 1961) 1-139.

- L. B. Krausse, "European Economic Integration and the United States", American Economic Review, Papers and Proceedings, LIII (May, 1963), 185-196.

- W. S. Salant, The United States Balance of Payments in 1968 (Washington: The Brookings Institution, 1963), 95-118.

¹⁵ P. J. Verdoorn and F. J. M. Meyer zu Schönbachtern, "Trade Creation and Trade Diversion in the Common Market", Intégration Européenne et Réalité Economique, (Bruges, 1964), 59-137.

¹⁶ J. Waelbroeck, "Le Commerce de la Communauté Européenne avec les Pays Tiers", Intégration Européenne et Réalité Economique (Bruges, 1964), pp. 139-164, in particular pp. 160-163.

¹⁷ J. Waelbroeck, op. cit., p. 157.

¹⁸ If Waelbroeck's study is repeated for the period 1954-1958, the same deformation of the world trade matrix is observed, which indicates that his method does not provide a clear indication of the trade expanding or trade diverting effects of the EEC.

¹⁹ For a further evaluation of Verdoorn and Meyer zu Schönbachtern's work on "Trade Creation and Trade Diversion in the Common Market, see: B. Balassa, "Trade Creation and Trade Diversion in the European Common Market", The Economic Journal, LXXVII (March, 1967), 4-5.

CHAPTER II

TWO MODELS MEASURING THE EFFECT OF
EEC ON HER EXTRA-AREA SUPPLIERS

The Relative Share Model

In 1963, B. Balassa suggested that, under ceteris paribus assumptions, trade diversion and creation can be measured by the differences in the income elasticities of the demand for imports for a period prior to and after the formation of a customs union. An increase in the income elasticity of the demand for imports, after the formation of the union, is an indication of trade creation while a fall in this elasticity is an indication of trade diversion. Some ceteris paribus assumptions are crucial and therefore will be made explicit:

- 1) no autonomous change in relative prices
- 2) no changes in exchange rates
- 3) no changes in trade flows, caused by the dynamic effects of a customs union.¹

Under these restrictive assumptions, the change in the tariff structure, resulting from the formation of the customs union, and the elimination or creation of other barriers to trade, are the only factors altering the income elasticities of the demand for imports. Because this model is only concerned with extra-area trade creation and diversion, I will only consider changes in the EEC's

income elasticities of extra-area imports prior to and after her formation. Extra-area trade creation is also known in the trade literature as trade expansion, while extra-area trade diversion is trade diversion in the Vinerian sense. The income elasticities of the demand for extra-area imports of the EEC will be calculated for several periods prior to and after the formation of the EEC.

The periods chosen are:

prior to the actual working of the EEC	after the actual working of the EEC
1951-1959	1959-1967
1952-1959	1959-1966
1953-1959	1959-1965
1954-1959	1959-1964

The elasticities will be calculated as the ratios of the average annual percentage change in imports of the EEC from all extra-area suppliers over the average annual percentage change in GNP.² Four effects explaining the influence of the EEC on her extra-area imports will be derived, namely: a Common Market effect, a competitive effect, a price effect and a total effect.³

The Common Market effect is an estimate of extra-area trade creation or diversion, depending on whether it is positive or negative. This effect is derived as the algebraic difference between two estimates of imports into the EEC from a specific country.

The first estimate of imports of the EEC from an extra-area supplier is derived under the assumption that no customs union is established. This estimate is derived by applying an adjusted growth rate of imports, from all extra-area suppliers of the EEC,

for a given period prior to the formation of the EEC, to the actual value of the EEC's imports from this specific extra-area supplier in a given base year. I have chosen 1959 as base year because this was the first year the EEC became operative.⁴ An alternative choice of base is the average value of imports of the EEC from a specific extra-area supplier for the period 1958-1960. This alternative base period has been proposed because the value of the EEC's imports in 1959, from a specific extra-area supplier, may be unusually high or low and, therefore, if chosen as base for the projections of imports in later years, may yield over- or underestimates of imports.⁵ The adjusted growth rates of extra-area imports of all suppliers, for a period prior to the formation of the EEC, are also formed under the assumption that no customs union was established. Indeed, this last assumption, together with the ceteris paribus assumptions, assures that no change in the income elasticity of the demand for extra-area imports will take place in periods prior to and after the formation of the EEC. It also means that, whenever the average annual growth rate of income of the EEC for a given period after her formation is different from the average annual rate achieved prior to her formation, the average annual growth rate of extra-area imports for the period prior to the formation of the EEC will have to be adjusted in order to keep a constant income elasticity of the demand for imports prior to and after the year the union was actually established.⁶

The second estimate of imports of the EEC is derived under the

assumption that the EEC was operative. Its purpose is to estimate the EEC's imports from a specific extra-area supplier on the basis of the actual average annual growth rate of extra-area imports from all extra-area suppliers for a given period after the formation of the EEC. Both estimates will be calculated in constant prices of 1959 and in exchange rates of 1959.

The difference between these two estimates of the EEC's imports is the Common Market effect; it indicates the amount of trade diversion or creation, which is "most likely" to affect an individual supplier, calculated on the basis of the performance of the "average" supplier of the EEC.⁷ However, there is no assurance that, in reality, either this specific extra-area supplier will have gained this predicted amount of trade creation, or that he will have suffered from the predicted amount of trade diversion.

The answer to the problem can be found in the competitive effect, which indicates whether, in a given year, the specific extra-area supplier has exported more or less to the EEC than predicted on the basis of the performance of the "average" extra-area supplier of the EEC. The competitive effect is measured by the difference between the actual imports of the EEC from this supplier (in a given year at 1959 prices and exchange rates) and the second estimated value of the EEC's imports from the same supplier.

The price effect is measured by the difference between the imports of the EEC from the specific extra-area supplier in current prices and the same imports in constant prices of 1959. The price

effect indicates an additional gain or loss realized by the extra-area supplier and also includes changes in exchange rates between the national currencies of the EEC countries and the U.S. dollar.

The total effect is the algebraic sum of the Common Market effect, the competitive effect and the price effect. These effects will be studied not only for total imports, but also for food, raw materials, chemicals, fuels, machinery, transport equipment and manufactures.⁸

Graphical representation of the relative share model

Example: The effects of the EEC on her raw material imports from the USSR, in 1967.

Explanation of the variables:

M_{1959} are the raw material imports of the EEC from the USSR in 1959 prices and 1959 exchange rates.

M^1_{1967} is the first estimated value of raw material imports of the EEC in 1967 from the USSR, derived as follows:

$$M_{1959} (1 + r_1)^7 = M^1_{1967}, \text{ where } r_1 = \left(\frac{\Delta M}{M} \right)^{\text{adj}}_{1951-59}$$

is the adjusted average annual growth rate of raw material imports of the EEC from all extra-area suppliers for the period 1951-1959.

M^2_{1967} is the second estimated value of raw material imports of the EEC in 1967 from the USSR, derived as follows:

$$M_{1959} (1 + r_2)^7 = M^2_{1967}, \text{ where } r_2 = \left(\frac{\Delta M}{M} \right)_{1959-67}$$

is the average annual growth rate of raw material imports

of the EEC from all extra-area suppliers for the period 1959-1967.

M_{1967} , in 1959 p., is the value of the EEC's raw material imports from the USSR in 1967, in 1959 prices.

M_{1967} , in 1967 p., is the value of the EEC's raw material imports from the USSR in 1967, in 1967 prices.

C.M.E. is the Common Market effect.

$$\text{C.M.E.} = M_{1967}^2 - M_{1967}^1$$

Comp.E. is the Competitive effect.

$$\text{Comp. E.} = M_{1967 \text{ in } 1959 \text{ p.}} - M_{1967}^2$$

P.E. is the price effect.

$$\text{P.E.} = M_{1967 \text{ in } 1967 \text{ p.}} - M_{1967 \text{ in } 1959 \text{ p.}}$$

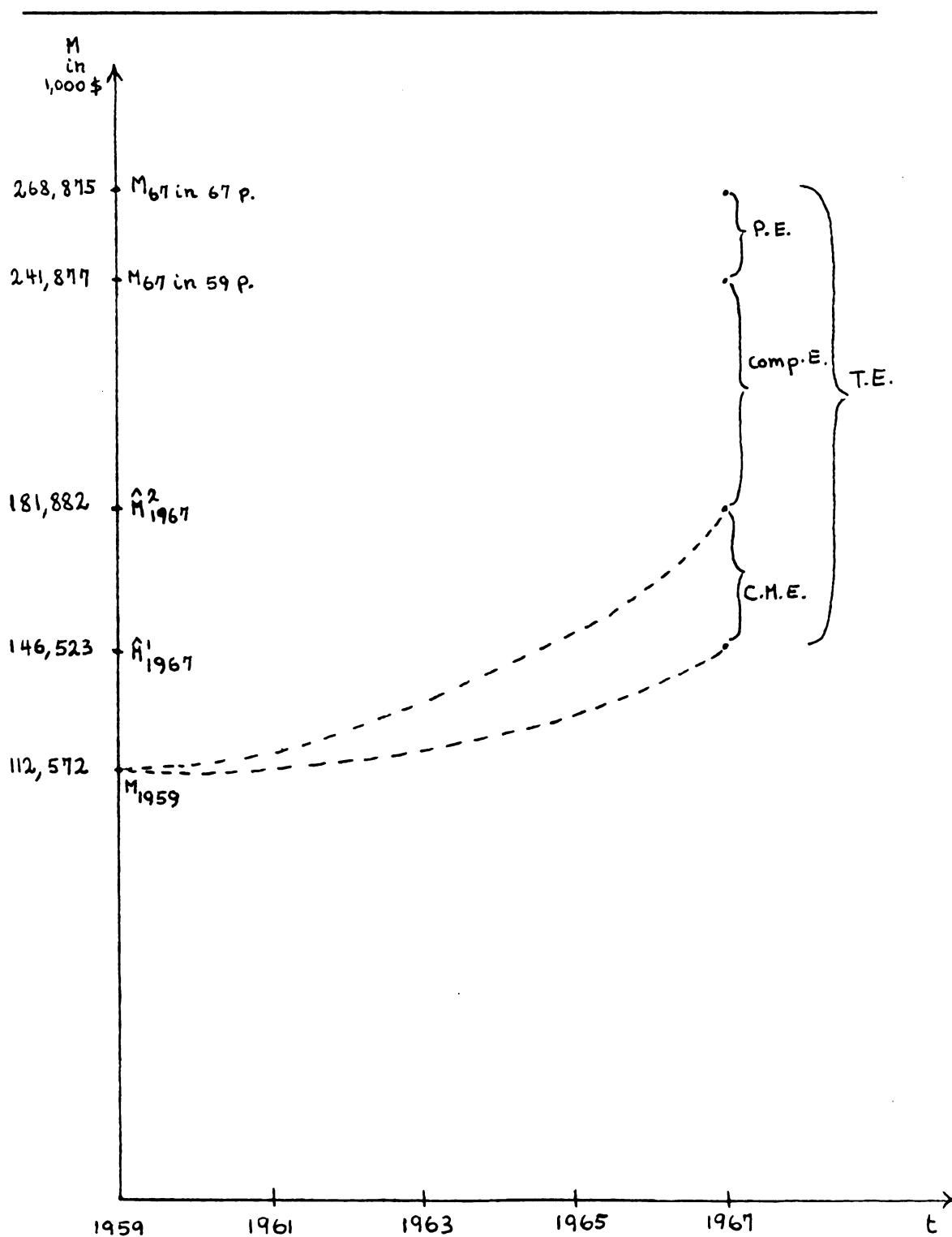
T.E. is the total effect.

$$\text{T.E.} = M_{1967 \text{ in } 1967 \text{ p.}} - M_{1967}^1$$

$$= \text{C.M.E.} + \text{Comp.E.} + \text{P.E.}$$

The empirical results of this model will be presented in Chapter III. In appendix A, I have presented the actual computation of the relative share model under the assumption that both the imports in 1959 and the average value of imports between 1958-1960 are chosen as base values for the projections.

Figure 2.1: The Effect of the EEC on her Raw Material Imports from the USSR in 1967.



The Linear Regression Model, Explaining the Demand for Imports of the EEC from the Communist Countries of Eastern Europe.

In the discussion of the relative share model, I stressed the advantages of the model relative to previous empirical studies. In spite of these advantages, the relative share model has some limitations. Indeed, the elimination of internal tariffs, the changes in external tariffs and the resulting changes in relative prices, causing inter-commodity and inter-country substitution, are implicitly measured by a "global income effect".

The following simple linear regression model, explaining the demand for imports of the EEC from the communist countries of Eastern Europe on the basis of yearly data, will correct some problems of the relative share model, but it creates some econometric problems that cannot easily be solved.⁹

Structural changes in an economy are reflected in changes in the structural parameters of a model. Because the formation of the EEC may be considered the most important structural change occurring in the partner countries since 1958 (actually 1959), I decided to measure the effect of the EEC on a specific extra-area supplier, by studying the change in the parameters of a linear model explaining the EEC's imports from that extra-area supplier. The variables which will be included are:

M = imports of the EEC in constant prices and constant exchange rates of 1959, representing the quantity variable which is expressed as an index where 1959 = 100.

Y = GNP of the EEC countries in 1959 prices and exchange rates. Income is expressed as a percentage value index, 1959 = 100.

P_D = Domestic price index of the EEC.
1959 = 100 (GNP deflator)

P_M = Import prices of the EEC, computed as

$$\frac{\sum P_1 Q_1}{\sum P_0 Q_1}$$

X₁ = Dummy variable
= 0 for the years prior to 1959
= 1 for the years since 1959 (including 1959, the first year the EEC was operational)

First, I will estimate imports in the EEC as a function of income and relative prices.

$$(2.1) \quad M_{51-67} = \alpha_0 + \alpha_1 Y + \alpha_2 \frac{P_M}{P_D} + v$$

Secondly, I included the dummy variable and derived the following

equation:

$$(2.2) \quad M_{51-67} = B_0 + B_2X + B_3Y + B_4XY + B_5 \frac{P_M}{P_D} + B_6X \frac{P_M}{P_D} + u$$

For the period prior to the EEC, $X = 0$ and the equation will be:

$$(2.3) \quad M_{51-58} = B_0 + B_3Y + B_5 \frac{P_M}{P_D} + m$$

For the period after the EEC was formed, $X = 1$ and the equation is:

$$(2.4) \quad M_{59-67} = (B_0 + B_1) + (B_2 + B_3)Y + (B_4 + B_5) \frac{P_M}{P_D} + n$$

The dummy variable is here included to measure the effect of a structural change, namely the formation of the EEC on her partners' imports.

This method of dummy variables permits to separate shifts in slopes and intercepts of a linear model. The significance of these shifts can be tested by means of an F test. Indeed, the ESS_1 (error sum of squares) of the regression with dummy variables will always be at least equal or smaller than the ESS_2 of the regression model without dummy variables. The ESS_2 belongs to equation 2.1 and the ESS_1 belongs to equation 2.2. If the EEC had not been introduced, such a dichotomy of the period 1951-1967 into two sub-periods, 1951-1958 and 1959-1967 would yield an ESS_1 approximately equal to ESS_2 , and an F test would reveal that the explanatory variables did not significantly explain more of the variation in imports by introducing dummy variables. But, because the EEC has been made operative since 1959, such a dichotomy of the period 1951-1967 will normally make

ESS_1 smaller than ESS_2 , whenever the EEC has had an effect on the imports of her partners. The F test will then reveal that ESS_1 is smaller than ESS_2 at a certain level of significance. If the F test is significant at the 5% level of confidence, I will accept that the EEC had an effect on a specific extra-area supplier. Whether this effect is trade creating or diverting will depend on the sign of the differences between two estimates of imports. This last test can be performed by first computing the estimated value of imports M^2 on the basis of equation 2.3 and the value of income and relative prices in each year between 1959 and 1967. Secondly, one computes M^1 on the basis of equation 2.4 and the values of income and relative prices in each year between 1959 and 1967. The difference for each year between $M^1 - M^2$ will then be computed and added over all years. If the sum of the differences $\sum_{i=59}^{67} (M_i^1 - M_i^2)$ is negative, I will call the effect of the EEC trade diverting. If this sum is positive, I will call the effect trade creating.

In spite of the shortcomings of the model, as explained in footnote nine, it gives the opportunity to answer the following important questions:

- 1) does this portion of East-West trade respond to economic factors?
- 2) are the imports of the EEC from the communist countries of Eastern Europe rather income or price elastic?
- 3) do relative prices play a more important role in the 1960's than in the 1950's? The answer to this question often indicates

whether this part of East-West trade responds more to economic factors in the 1960's than during the 1950's.

4) most important of all, one can answer the question whether the EEC had an extra-area trade expanding or diverting effect and whether the conclusions of the relative share model are supported.

In this Chapter, two models have been discussed to measure the effect of the EEC on her members' extra-area imports. Both models have their advantages and their weaknesses. The relative share model, however, is especially simple and operational even if the data are not free of errors.

In Chapter IV, I will present a selection of empirical results based on the linear regression model. The results based on the relative share model are presented in the following chapter.

FOOTNOTES

¹ - Thorbecke found that the dynamic effects of integration favor imports of fuels, minerals and basic metals but are likely to be negative for foodstuffs as a whole.

- E. Thorbecke, "Problems of Regional Integration, European Integration and the Pattern of World Trade", American Economic Review, Papers and Proceedings, LIII, no. 2 (March, 1963), 173.

- Balassa gives the impression that the dynamic effects of the EEC may be rather limited.

- Bela Balassa, "The Future of Common Market Imports", Weltwirtschaftliches Archiv, (Hamburg, 1963) Band 90, Heft 2, 306-308.

- The estimates of extra-area trade creation and diversion obtained by comparing ex-post income elasticities of extra-area import demand for the period after the formation of the union with those obtained for the period prior to its formation will be biased either upwards or downwards depending on whether the dynamic effects of the union stimulated pro- and anti-trade biased growth.

² The income elasticities of the demand for imports have been calculated on the basis of growth rates of extra-area imports of the EEC at constant prices of 1959 and exchange rates of 1959, while GNP of the EEC is a proxy for the income variable and is measured in 1958 prices and 1958 exchange rates. The extra-area imports of the EEC have been transferred from current prices to constant prices by multiplying unit values of 1959 with the quantities of all other years. This has been done on a commodity-by-commodity basis (three-digit S.I.T.C.) and on a country-by-country basis. The same method was chosen to calculate the value of the EEC's imports from the communist countries of Eastern Europe in constant prices. This method is explained in more detail in Appendix B.

³ Bela Balassa, "Trade Creation and Trade Diversion in the European Common Market", The Economic Journal, LXXVII (March, 1967), p. 11.

⁴ The actual operation of the EEC began in 1959, even though the Treaty of Rome was signed on March 24, 1957.

⁵ The choice of base year (1959) may also influence the estimates considerably. Exceptionally high values of imports for 1959 will yield over-estimates of the Common Market effect, but under-estimates of the competitive effect, while extremely low values of imports in

1959 will yield under-estimates for the Common Market effect and over-estimates of the competitive effect. I have tried to correct this weakness in the method by taking as base both the value of imports of the EEC in 1959 and an average value of imports for the period 1958-1960.

⁶This is achieved as follows:

Given $\frac{\Delta \overline{M}}{\overline{M}_{51-59}}$ as the average annual growth rate of imports between 1951-1959.

$\frac{\Delta \overline{Y}}{\overline{Y}_{51-59}}$ as the average annual growth rate of income between 1951 and 1959.

$\frac{\Delta \overline{M}}{\overline{M}_{59-67}}$ as the average annual growth rate of imports between 1959 and 1967.

$\frac{\Delta \overline{Y}}{\overline{Y}_{59-67}}$ as the average annual growth rate of income between 1959 and 1967.

$$\text{Then } \frac{\frac{\Delta \overline{M}}{\overline{M}_{59-67}}}{\frac{\Delta \overline{Y}}{\overline{Y}_{59-67}}} = \frac{\frac{\Delta \overline{M}}{\overline{M}_{59-67}}}{\frac{\Delta \overline{Y}}{\overline{Y}_{51-59}}} \text{ adj}$$

$\frac{\Delta \overline{M}}{\overline{M}_{59-67}} \text{ adj}$ is the average annual adjusted growth rate included in the computations of the model.

⁷The performance of the "average" supplier is measured by the imports of the EEC of all extra-area suppliers.

⁸The coverage of the commodity groups is defined in Appendix B.

⁹This model is plagued with several serious econometric problems: multicollinearity between the independent variables, errors in the dependent variable and an identification problem.

The most important problem is multicollinearity between the independent variables. Value indexes of income in constant prices and domestic price indexes in the EEC are highly correlated. In addition, some import price indexes are also highly correlated with income in the EEC, be it only accidental. Consequently, relative prices $\frac{P_M}{P_D}$ (import price index, divided by domestic price index)

$\frac{P_M}{P_D}$

are highly correlated with income, causing multicollinearity between the independent variables of my linear model. Including dummy variables worsens this problem because part of the crossproduct terms

$X \cdot Y$ and $X \cdot \frac{P_M}{P_D}$ will be highly correlated with Y and X . The problem

can be recognized by testing whether $\rho_{Y \frac{P_M}{P_D}}$ is nearly one. It is

not necessary to consider the case of perfect multicollinearity because it is unlikely that this model would be plagued with it. The more important case is that where "some" multicollinearity is present. The consequences of multicollinearity are that OLS still give unbiased estimators of the parameters, but the variances and co-variances of the estimators become large, the coefficient of determination is unusually high and finally, small changes in observations in the sample may change the sign of the estimators contrary to the one expected on the basis of economic theory. The SEE (standard error of estimate) is still correctly estimates. If the correlation continues to exist in the future, predictions will be unbiased. However, if one uses such a model to understand the structural relationship between dependent and independent variables, it will be rather disappointing because of the large standard errors of the estimators. There are many cures for multicollinearity. The solutions can be stated briefly:

- a) Use cross-section data to estimate some of the parameters (also called outside information). No such information is available to me.
- b) Use first differences. However, the major objection to this solution is that one introduces auto-regression. I transformed my data to percentage changes.
- c) Increase the sample size. This is important if multicollinearity is not in the population but only in some samples. Increasing the size of my sample was not possible because of the shortness of the time series.
- d) Use outside information; for example, estimate some parameters from other samples of the same population. This was not feasible.
- e) Exclude one variable which is highly correlated with the other variable. I have tried this with little success. If the method of deletion is followed, $\hat{B}_1$, estimated by OLS (ordinary least squares) is no longer unbiased. It would also have reduced the linear regression model to a variant of the relative share model.
- f) Finally, a solution which is suggested by some econometricians in cases of "moderate" multicollinearity is to "accept it and

live with it". However, this cannot be called a real solution.

On the basis of this review of the literature on multicollinearity, I conclude that, although the estimates of the parameters derived from OLS are not biased, their standard errors may become extremely large and one is often inclined to reject the estimates on the basis that they are not significant at a 5% level of confidence. I will not reject the estimated values of my parameters for this reason even if they are not statistically significant at 5%. The main reason why I have decided to accept the results is that this problem is inherent in many foreign trade models and, because of lack of outside information it cannot be properly corrected. A second reason, not less important, is that in East-West trade studies, the majority of statements are based either on institutional studies or "educated guesses". East-West trade is indeed affected by many non-economic factors, and one should be satisfied to find that this form of international trade also responds to economic variables. There is an urgent need for quantitative studies in this area even if perfection cannot be achieved. A third reason is that I will be especially concerned with the sign of the algebraic sum of differences of estimated and predicted values of the EEC's imports from a specific extra-area supplier rather than with the absolute magnitude. This argument related to my second test in this model.

The second problem with this model is that there are errors in the dependent variable. Under certain conditions, this is not so much of a problem. Indeed, if the errors are only in the dependent variable, and if they are not correlated with the true values, their presence tends to lower the correlation and to increase the standard error of estimate, but it does not tend to change the slope of the regression line from the true slope for the universe. Unfortunately, the errors may be somewhat negatively correlated with the absolute size of the import data, as explained in Appendix B. I do not know whether there are measuring errors in the relative price variable, but it is clear that this variable is only a proxy for the variable indicated by economic theory. It may, therefore, be necessary to assume some degree of error in one of the independent variables. This would tend to bias the estimator downwards (towards zero). None of the three solutions to correct errors in variables, namely: the classical approach, groupings of observations or the use of instrumental variables has been applied.

Finally, the model measuring the EEC's demand for extra-area imports consists of a single equation. This equation represents the price - quantity relationship and a demand shifter, namely income. A single equation demand model is not a complete model and the demand equation is not exactly identified, which could lead to the estimation of a supply curve, a demand curve, or a combination of both. The problem leads to the "simultaneous equation bias". The solution is to write out the complete model, namely both the demand and supply functions, where the quantity of goods offered is a function of relative prices and an "appropriate supply shifter"

(which is different from the demand shifter). This would make the complete model and hence the demand equation exactly identified because both the necessary and sufficient conditions for identification of the complete model would be fulfilled. Both equations can then be jointly estimated.

The problem in international trade models is to find the appropriate supply shifter. An example of a supply shifter for the world supply of a specific commodity or group of commodities is the weighted average of labor costs for all suppliers or a group of dominant suppliers. If only a trade model between two market economies is studied, it is sometimes feasible to find a supply shifter for the exporting country. In my model, it was impossible to find the appropriate supply shifter. I experimented with two supply shifters for each communist country of Eastern Europe, namely: "labor costs" and "the need for foreign reserves". In communist countries, foreign trade is conducted by foreign trade monopolies. Export prices are not related to labor costs because of the existing subsidies paid out of the budget or because of taxes paid into the budget that equalize domestic prices with the prices prevailing on the world market. Exports are planned centrally and labor costs do not play a major role in deciding which commodity will be exported and in what quantity. The "labor cost" variable was completely insignificant, even at a 20% level of confidence. Since East-West trade is considered to be mainly bilateral, I assumed that exports might be the only means to pay for imports. Therefore, I chose the value of imports of the USSR, first from the EEC and later from all market economies, as a supply shifter. Both these variables, introduced in separate models, were insignificant, even at a 20% level of confidence. This can be explained by the fact that some communist countries of Eastern Europe have large balance of payments deficits with the EEC and even with the world as a whole, while others have balance of payments surpluses. In addition, some communist countries of Eastern Europe, in particular the USSR, have paid in gold for their imports in excess of their maximum export earnings. Because East-West trade is not purely bilateral, the variable "value of imports" is not a successful supply shifter. I have finally decided to estimate the single equation model, representing the demand for imports of the EEC from each communist country of Eastern Europe.

A brief survey on the effects of Multicollinearity:

- A. S. Goldberger, Econometric Theory, (New York: John Wiley and Sons, Inc., 1964), 192-194.
- J. Johnston, Econometric Methods (New York: McGraw-Hill, 1960), 201-207.
- E. Malinvaud, Statistical Methods of Econometrics (Chicago: Rand McNally and Co., 1966), 187-192.

- J. Tobin, "A Statistical Demand Function for Food in the U.S.A.", Journal of the Royal Statistical Society, Series A, vol. 113 (1950), 113-141.

- J. Meyer and E. Kuh, "How Extraneous are Extraneous Estimates?" Review of Economics and Statistics, Vol. 39, (November, 1957) 380-393.

- M. Ezekiel and K. A. Fox, Methods of Correlation and Regression Analysis (New York: John Wiley and Sons, Inc., 1959), 312.

The effect of errors in variables:

- J. Johnston, Econometric Methods (New York: McGraw-Hill, 1960), 148-175.

- E. Malinvaud, Statistical Methods of Econometrics (Chicago: Rand McNally and Co., 1966), 326-363.

- A. S. Goldberger, Econometric Theory (New York: John Wiley and Sons, Inc., 1964), 282-287.

- M. G. Kendall and A. Stuart, The Advanced Theory of Statistics (London: Griffin, 1961), Vol. 2, Chap. 29.

- M. Halperin, "Fitting of Straight Lines and Prediction When Both Variables are Subject to Error", Journal of the American Statistical Association, LVI, no. 295 (September 1961), 657-669.

The identification problem:

- A simple explanation of the identification problem is given by: Ronald L. Teigen, "The Demand for and the Supply of Money", in: Warren Smith and Ronald L. Teigen, Readings in Money, National Income and Stabilization Policy (Homewood, Illinois: Richard D. Irwin, Inc., 1965), 50-53.

- Carl F. Christ, Econometric Models and Methods (New York: John Wiley and Sons, Inc., 1966), 298-346.

- F. M. Fisher, "Generalization of the Rank and Order Conditions for Identifiability", Econometrica, XXVII (July, 1959), 431-447.

- A. S. Goldberger, Econometric Theory (New York: John Wiley and Sons, Inc., 1964), 306-318.

Former research on the demand for imports which did not cope with these problems:

- On the basis of quarterly data, R.R. Rhomberg and L.

Boissonneault estimated imports as a function of real income and relative prices in a single equation regression model. Often the income and price variables were not significant at the 5% level. The problem of multicollinearity is not extensively discussed, and no values for the correlation between Y and $\frac{P_M}{P_D}$ are given. See:

- J. S. Duesenberry et al, The Brookings Quarterly Econometric Model of the United States. (Amsterdam: North Holland Publishing Co., 1965), 375-406, in particular p. 381.

- Also the Wharton Econometric Forecasting Model has a similar equation for imports of crude and manufactured food products:

$$\frac{M}{N} = a + b \frac{Y}{N} - c \frac{P_M}{P_D}$$

where N = population

M = imports

Y = personal disposable income

$\frac{P_M}{P_D}$ = relative prices.

The advantage of this equation is that both coefficients b and c are highly significant, but $R^2 = .305$ is quite low. However, the multicollinearity is presumably lower. None of these models is exactly identified. See:

- Michael E. Evans, et al., The Wharton Econometric Forecasting Model, (University of Pennsylvania, Studies in Quantitative Economics, no. 2, 1967), 9.

CHAPTER III

THE EMPIRICAL RESULTS OF THE RELATIVE SHARE MODEL

The purpose of this thesis, as stated in the introduction, is to measure the effects of the EEC on the exports of the communist countries of Eastern Europe. To achieve this goal, two models were developed in Chapter II. The results of the test of the relative share model will be presented in this Chapter.

In the relative share model, extra-area trade creation and diversion in total imports of the EEC is measured either by an increase or by a fall in the income elasticity of the demand for extra-area imports of the EEC. In Table 3.1, ex post income elasticities for extra-area imports are presented for four periods prior to and after the formation of the EEC.¹ It can be observed in this table, that the differences in income elasticities for each commodity group do not always carry the same sign in each period prior to and after the formation of the EEC. For the periods 1951-59 and 1959-67, one finds that the EEC had an extra-area trade diverting effect for food and chemicals, while for raw materials, fuels, machinery, transport equipment and manufactures, only trade creation can be observed. If one studies the period 1952-59 and 1959-66, an extra-

Table 3.1

EX-POST INCOME ELASTICITIES OF THE DEMAND FOR EXTRA-AREA IMPORTS OF THE EEC:

IMPORTS*	Average Annual Growth Rates		Ex-Post Income Elasticities of Demand for Imports		Difference		Adjusted Average Annual Growth Rates	
	1951-59	1959-67	1951-59	1959-67			1951-59	1959-67
Food	.0589	.0494	1.12	.99	- .13		.0560	.0494
Raw Materials	.0352	.0618	.67	1.24	+ .57		.0335	.0618
Fuels	.0901	.1300	1.72	2.60	+ .88		.0858	.1300
Chemicals	.1364	.1019	2.60	2.04	- .56		.1298	.1019
Machinery	.0206	.1164	.39	2.33	+ 1.94		.0196	.1164
Transport Eq.	.0446	.0881	.85	1.85	+ 1.00		.0425	.0881
Manufactures	.1079	.1055	2.05	2.11	+ .06		.1026	.1055
**								
GNP	.0525	.0500					.0500	.0500
	1952-59	1959-66	1952-59	1959-66	Difference		1952-59	1959-66
Food	.0584	.0584	1.08	1.09	.01		.0577	.0584
Raw Materials	.0396	.0785	.73	1.47	.74		.0391	.0785
Fuels	.0860	.1386	1.59	2.59	1.00		.0849	.1386
Chemicals	.1483	.1106	2.74	2.07	-.67		.1464	.1106
Machinery	.0301	.1463	.56	2.74	2.18		.0287	.1463
Transport Eq.	.0536	.1141	.99	2.13	1.14		.0529	.1141
Manufactures	.1231	.1201	2.27	2.25	-.02		.1215	.1201
**								
GNP	.0542	.0535					.0535	.0535

IMPORTS*

	Average Annual Growth Rates			Ex-Post Income Elasticities of Demand for Imports			Adjusted Average Annual Growth Rates		
	1953-59	1959-65		1953-59	1959-65	Difference	1953-59	1959-65	
Food	.0730	.0630		1.36	1.14	- .22	.0752	.0630	
Raw Materials	.0345	.0875		.64	1.58	.94	.0355	.0875	
Fuels	.0915	.1550		1.70	2.80	1.10	.0943	.1550	
Chemicals	.1373	.1210		2.55	2.18	- .37	.1414	.1210	
Machinery	.0305	.1727		.57	3.15	2.55	.0314	.1727	
Transport Eq.	.0747	.1413		1.39	2.55	1.16	.0769	.1413	
Manufactures	.1453	.1308		2.70	2.36	- .34	.1497	.1308	
**									
GNP	.0538	.0554					.0554	.0554	
	1954-59	1959-64		1954-59	1959-64	Difference	1954-59	1959-64	
Food	.0730	.0606		1.38	1.05	- .33	.0796	.0606	
Raw Materials	.0225	.1095		.43	1.90	1.47	.0246	.1095	
Fuels	.1030	.1532		1.94	2.65	.71	.1124	.1532	
Chemicals	.0840	.1354		1.59	2.34	.75	.0916	.1354	
Machinery	.0188	.1916		.36	3.32	2.96	.0205	.1916	
Transport Eq.	.1350	.1502		2.55	2.60	.05	.1473	.1502	
Manufactures	.1216	.1530		2.29	2.65	.36	.1327	.1530	
**									
GNP	.0530	.0578					.0578	.0578	

*Source: United Nations, Statistical Office, Commodity Trade Statistics, Series D, 1952-1966. Imports are measured in prices and exchange rates of 1959, on the basis of the method presented in Appendix B.

**Source: Organization for Economic Co-operation and Development, Statistics of National Accounts: (1950-1961) and (1958-1967), Paris, 1954 and 1968.
GNP is measured at 1958 prices and 1958 exchange rates.

area trade diverting effect of the EEC can only be observed for chemicals and manufactures. For all other commodity groups the EEC's external effect was trade creating during the period 1959-1966, relative to the period 1952-1959. Considering the periods 1953-1959 and 1959-1965, the effect of the EEC was trade diverting in food, chemicals and manufactures, while for the other commodity groups, only extra-area trade creation can be observed. Finally, for the period 1954-1959 and 1959-1964, the EEC had only a trade diverting effect on her members' imports of food. In the four periods studied, the number of commodity groups for which the EEC had an extra-area trade creating effect is larger than that for which she caused trade diversion. In Table 3.2, I present the average percentage commodity mix of the EEC's total imports for the period 1959-1967 and the weighted sum of the differences in income elasticities for the periods 1951-1959 and 1959-1967. This sum is positive, which indicates that the overall effect of the EEC is trade creating.

Table 3.1 indicates that in all four periods the EEC had a trade creating effect for raw materials, fuels, machinery and transport equipment. Part of the extra-area trade creation in the imports of machinery is due to dynamic effects, as indicated by Thorbecke; my estimates in Table 3.1 may be over-estimates of the static trade creating effects of the EEC on the extra-area import demand for machinery.²

The empirical results of the relative share model will depend on the length of the period (prior to and after the formation of

Table 3.2 The Overall Trade Expanding Effects of the EEC

Commodity Group	Average yearly percentage distribution of EEC's imports 1959-1967	Difference in income elasticities	Weighted difference in income elasticities
Food	.216	- .13	- .028
Raw Materials	.228	.57	.130
Fuels	.149	.88	.131
Chemicals	.052	- .56	- .029
Machinery	.101	1.94	.196
Transport Eq.	.027	1.00	.027
Manufactures	.228	.06	.014

Source: Appendix A.

the EEC) that is chosen to compute adjusted average annual growth rates of the demand for imports. I chose the longest period available, namely 1951-1959 and 1959-1967, to capture the trend in the changes in income elasticities prior to and after the formation of the EEC, rather than accidental yearly changes. Consequently, the results of the test of the model will be based on the adjusted growth rates of extra-area imports for the period 1951-1959 and 1959-1967. As base year for the projections, both 1959 and the average 1958-1960 were chosen. The results are presented in Appendix A. The following tables in this chapter are only based on projections with 1959 as base year.

In the relative share model, the effect of the EEC on her members' extra-area imports is divided into four effects: a Common Market effect, a competitive effect, a price effect and a total effect. These four effects will be presented, first, for total imports of the EEC from each communist country of Eastern Europe and secondly, for the same imports, but disaggregated into seven commodity groups. This order in the presentation is chosen because the export commodity mix of each communist country of Eastern Europe determines the way in which its total exports to the EEC will be influenced by the economic integration of the Six. This chapter will be divided into two main parts. In the first part, I will compare the relative competitive position of each communist country of Eastern Europe vis-à-vis all extra-area suppliers of the EEC. In the second part, I will compare the export performance to the EEC

of each communist country of Eastern Europe, relative to its partners in COMECON. The order in which the effect of the EEC on each communist country of Eastern Europe is discussed, depends on the relative success of that country in expanding its share in the EEC's market for extra-area imports.

The Effect of the EEC on the Exports of Romania to the EEC

Romania has shared very favorably in the overall trade expanding effects of the EEC. Table 3.3 indicates that the total effect of the EEC on her members' imports from Romania is positive from 1960 to 1967 and ranges from 21% to 60% of the yearly exports of Romania to the EEC in current prices. The estimated Common Market effect for the total exports of Romania to the EEC, represented in Table 3.3, is positive between 1960 and 1967, indicating that the commodity composition of Romania's exports to the EEC is favorable vis-a-vis the extra-area trade expanding effects of the EEC. The size of the Common Market effect, which is estimated on the basis of the effect of the EEC on all her extra-area suppliers, ranges from 2% to 10% of Romania's yearly exports to the EEC in current prices.

Romania is a strong competitor in the EEC's market for extra-area imports, relative to all other extra-area suppliers. The competitive effect is positive between 1960 and 1967 and ranges from 25% to 51% of Romania's yearly exports to the EEC, as can be observed in Table 3.3. The competitive effect is always larger than the Common Market effect, indicating that, measured in constant prices of 1959, the share of Romania's exports in the EEC's market for extra-area imports is constantly growing. The fact that Romania is so successful in the import market of the EEC is extremely important for that country as a way to preserve some degree of political and economic independence from the other communist countries

Table 3.3: The Four Effects of the EEC on Romania's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	15,848	64,680	46,715	82,623	60,235	80,672	118,899	143,262
(2)	21%	50%	40%	53%	43%	49%	57%	60%
C.M.E.								
(1)	1,595	3,459	5,669	8,239	11,232	14,709	18,776	23,413
(2)	2%	5%	5%	5%	8%	9%	9%	10%
Comp.E.								
(1)	18,919	63,278	47,216	78,213	54,283	52,999	93,837	122,955
(2)	25%	49%	41%	50%	39%	32%	45%	51%
P.E.								
(1)	-4,667	-2,057	-6,169	-3,828	-5,280	12,964	6,286	-3,106
(2)	-6%	-2%	-5%	-2%	-4%	8%	3%	-1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.4: Romania: Common Market effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-50.27	-105.86	-166.79	-233.81	-307.69	-388.41	-446.04	-573.49
(2)	-.3%	-.3%	-.5%	-.6%	-.8%	-.7%	-.7%	-.6%
<u>Raw Mat.</u>								
(1)	569.91	1,194.18	1,876.86	2,621.97	3,435.54	4,319.60	5,282.19	6,325.35
(2)	3%	3%	5%	5%	6%	7%	6%	8%
<u>Fuels</u>								
(1)	1,085.60	2,404.52	3,996.08	5,907.44	8,183.72	10,885.43	14,080.83	17,843.56
(2)	4%	8%	12%	15%	28%	45%	36%	50%
<u>Chemicals</u>								
(1)	-20.62	-58.18	-77.08	-114.70	-160.00	-214.23	-278.97	-355.83
(2)	-2%	-9%	-6%	-5%	-10%	-4%	-5%	-4%
<u>Machinery</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Trans.Eq.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Manuf.</u>								
(1)	10.82	23.89	39.57	58.24	80.64	106.76	137.75	173.59
(2)	.1%	.1%	.6%	.3%	74%	1%	.6%	.7%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

of Eastern Europe.

The price effect for Romania's total exports to the EEC is mostly negative between 1960 and 1967, and ranges from -6% to +8% of Romania's yearly exports to the EEC. To some extent, the predominantly negative price effect represents the costs of the tremendous expansion of Romania's share in the EEC's market for extra-area imports. However, this cost, expressed by the negative price effect, is small compared to the large positive competitive effect.

The Common Market effect for the seven commodity groups shown in Table 3.4 indicates that the commodity composition of Romania's exports to the EEC is favorable relative to the extra-area trade expanding effect of the EEC. In 1967, raw materials comprised 33% and fuels 15% of Romania's exports to the EEC. For both commodity groups the EEC has a strong extra-area trade expanding effect. All the commodity groups for which the EEC expanded its external trade counted in 1967 for 58% in the total exports of Romania to the EEC. The negative Common Market effect for fuels and food is much smaller in absolute value than the positive effect for the other commodity groups. If measured on the basis of the competitive strength of the "average" extra-area supplier one can predict that Romania gained substantially from the formation of the EEC. In addition, Romania is a strong relative competitor for food, raw materials, chemicals and manufactures, but a weak competitor for fuels, which can be seen in Table 3.5. Prior to 1962, Romania

Table 3.5: Romania: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	12,322.13	26,419.71	24,846.05	26,531.28	26,376.40	37,418.96	34,141.21	66,448.28
(2)	62%	82%	79%	70%	69%	68%	58%	75%
Raw Mat.								
(1)	6,463.37	26,629.02	19,450.86	35,283.18	37,216.37	40,419.14	50,206.57	52,489.62
(2)	31%	56%	46%	62%	61%	60%	61%	67%
Fuels								
(1)	-2,891.18	-780.98	-91.54	3,343.74	-11,742.65	-32,370.84	-10,217.86	-24,656.84
(2)	-12%	-3%	-.3%	8%	-40%	-133%	-26%	69%
Chem.								
(1)	277.23	-278.14	1,022.54	3,126.33	1,139.74	5,536.58	6,288.87	11,699.51
(2)	20%	-41%	81%	134%	72%	113%	124%	114%
Mach.								
(1)	-	-	183.74	-	145.31	-	1,249.80	1,904.48
(2)	-	-	122%	-	133%	-	101%	126%
Trans.Eq.								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
Manuf.								
(1)	2,747.37	11,288.79	1,804.34	9,928.00	1,147.75	1,994.70	12,168.69	15,069.78
(2)	28%	57%	29%	55%	15%	16%	55%	63%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.6: Romania: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-573.36	-2,714.45	-2,142.10	1,924.80	2,056.48	7,662.87	13,662.97	11,227.87
(2)	-3%	-9%	-7%	5%	5%	14%	23%	13%
<u>Raw Mat.</u>								
(1)	-7,139.80	-2,171.60	-1,437.06	-3,560.59	-3,266.63	-1,592.91	1,577.44	-6,886.59
(2)	-35%	-5%	-4%	-6%	-5%	-2%	2%	-9%
<u>Fuels</u>								
(1)	-127.75	-1,338.96	-1,221.53	-3,006.45	-3,855.99	5,508.84	-8,568.81	-4,641.03
(2)	-.5%	-5%	-4%	-7%	-13%	23%	-22%	-13%
<u>Chem.</u>								
(1)	307.47	63.99	-746.25	-1,878.76	-755.17	-1,969.32	-2,667.40	-3,077.58
(2)	22%	10%	-59%	-80%	-48%	-40%	-53%	-30%
<u>Mach.</u>								
(1)	-	-	-33.74	-	-36.31	-	-9.80	-396.48
(2)	-	-	-25%	-	-33%	-	-1%	-26%
<u>Trans.Eq.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Manuf.</u>								
(1)	2,866.80	4,104.11	-588.62	-3,828.32	577.69	3,354.46	2,291.49	667.64
(2)	29%	21%	-9%	-21%	7%	27%	10%	3%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.7: Romania: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	11,698.50	23,599.40	22,537.16	28,222.27	28,125.19	44,693.42	47,358.14	77,102.66
(2)	59%	74%	72%	75%	74%	81%	81%	87%
<u>Raw Mat.</u>								
(1)	-106.62	25,651.60	19,890.66	34,344.56	37,385.28	43,145.83	57,066.20	51,928.38
(2)	-.5%	54%	47%	60%	61%	64%	69%	66%
<u>Fuels</u>								
(1)	-1,933.33	284.58	2,683.01	6,244.73	-7,414.92	-15,976.57	-4,705.84	-11,454.31
(2)	-8%	1%	8%	16%	-25%	-66%	-12%	-32%
<u>Chem.</u>								
(1)	564.08	-272.33	199.21	1,132.87	224.87	3,353.03	3,342.50	8,266.10
(2)	40%	-41%	16%	49%	14%	69%	66%	81%
<u>Mach.</u>								
(1)	-	-	150.00	-	109.00	-	1,240.00	1,508.00
(2)	-	-	100%	-	100%	-	100%	100%
<u>Trans.Eq.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Manuf.</u>								
(1)	5,624.99	15,416.79	1,255.29	12,679.00	1,806.08	5,455.92	14,597.93	15,911.01
(2)	58%	77%	20%	70%	23%	45%	66%	66%

(1) is the value of the effect, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

did not export machinery to the EEC. In 1962, the export of machinery to the EEC was \$ 150,000 in current prices, but by 1967 this figure increased to \$ 1,508,000. This shows the eagerness of this developing country to expand its trade with the EEC as a means to be more independent from the other communist countries of Eastern Europe. The price effect is mostly negative for fuels, raw materials, chemicals and machinery, but it is positive for food and manufactured goods, as can be observed in Table 3.6. The negative price effect for fuels is partly the result of a fall in the world price of this commodity group. The fall in Romania's export prices of chemicals, from 1960 to 1967, relative to the price level of 1959, indicates the cost at which Romania has captured a larger share of the EEC's market for extra-area imports of chemicals in spite of the trade diverting effect of the EEC in this commodity group. The total effect, represented in Table 3.7, indicates that Romania gained substantially from the formation of the EEC.

From this analysis, one can conclude that:

- 1) Romania has very favorably shared in the trade expanding effects of the EEC.
- 2) Romania is a strong competitor in the EEC's market for extra-area imports.
- 3) The prices of Romania's exports to the EEC were generally lower in the period 1960-1967 than in 1959, which indicates that she may have had to buy part of her favorable competitive position at the cost of a fall in her export prices.

The Effect of the EEC on Bulgaria's Exports to the EEC

The effect of the EEC on her members' total imports from Bulgaria is especially interesting, because the predicted Common Market effect is negative from 1960 to 1967 and ranges from $-.1\%$ to $-.7\%$ of total exports of Bulgaria to the EEC, as indicated in Table 3.8. This can be explained by the commodity composition of Bulgaria's exports to the EEC, relative to the trade diverting effects of the EEC in food and chemicals.

However, Bulgaria's competitive strength in the EEC's market for extra-area imports, relative to all other extra-area suppliers of the EEC, is remarkable. Table 3.8 indicates that the competitive effect for total exports of Bulgaria to the EEC is positive between 1960 and 1967, and ranges from 22% to 51% of Bulgaria's yearly exports to the EEC. The positive competitive effect completely overshadows the negative Common Market effect. From this observation, I can conclude that the relative share of Bulgaria in the EEC's market for extra-area imports is growing over time.

Another interesting observation is that the price effect of Bulgaria's exports to the EEC is always positive, as indicated in Table 3.8. This suggests that Bulgaria has not bought her remarkable positive competitive effect at the cost of a fall in her export prices. The total effect, represented in Table 3.8, is always positive between 1960 and 1967, and ranges from 28% to 62% of Bulgaria's yearly exports to the EEC.

Table 3.8: The Four Effects of the EEC on Bulgaria's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	11,178.15	20,848.36	18,746.24	35,011.20	16,978.94	42,698.13	62,250.18	72,557.87
(2)	28%	41%	37%	51%	32%	53%	60%	62%
C.M.E.								
(1)	-63.72	-136.33	-217.69	-309.69	-413.94	-531.16	-662.72	-811.74
(2)	-.1%	-.2%	-.4%	-.4%	-.7%	-.6%	-.1%	-.6%
Comp/E.								
(1)	8,901.87	17,658.43	16,421.57	31,109.50	13,158.34	29,335.21	42,148.02	59,490.11
(2)	22%	35%	32%	45%	25%	36%	41%	51%
P.E.								
(1)	2,340.00	3,326.26	2,542.36	4,211.39	4,234.54	13,894.08	20,764.88	13,879.50
(2)	6%	7%	5%	6%	8%	17%	20%	12%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.9: Bulgaria: Common Market Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-133.79	-281.76	-443.93	-622.32	-818.95	-1,033.82	-1,268.96	-1,526.41
(2)	-.5%	-.9%	-1.4%	-1.4%	-2.6%	-2%	-2%	-2%
<u>Raw Mat.</u>								
(1)	77.40	162.19	254.90	356.10	466.59	586.66	717.39	859.06
(2)	1%	1%	2%	2%	4%	4%	4%	4%
<u>Fuels</u>								
(1)	10.08	22.32	37.09	54.83	75.97	101.05	130.72	165.64
(2)	3%	9%	-	5%	16%	41%	43%	18%
<u>Chem.</u>								
(1)	-25.19	-56.25	-94.19	-140.15	-195.50	-261.78	-340.88	-434.79
(2)	-2%	-6%	-10%	-11%	-15%	-19%	-17%	-15%
<u>Mach.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Trans.Eq.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Manuf.</u>								
(1)	7.78	17.17	28.44	41.85	57.95	76.73	99.01	124.76
(2)	.1%	.6%	.6%	.7%	.7%	.5%	.5%	.7%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

The Common Market effect for agricultural products and chemicals is negative, as indicated in Table 3.9. Agricultural products, for which the EEC has a trade diverting effect, take the largest share in the commodity composition of Bulgaria's exports to the EEC. Chemicals, for which the EEC has a trade diverting effect, have also a fairly large share in Bulgaria's exports to the EEC. This explains why Bulgaria has a negative predicted Common Market effect for her total exports to the EEC, as indicated in Table 3.9.

Nevertheless, Table 3.10 shows that this country is a strong relative competitor for food, raw materials, fuels, machinery, and even manufactures, in the EEC's import market. This can be explained by the fact that Bulgaria was extremely underdeveloped after the second world war. The development efforts since the early 1950's have, in the 1960's, created the economic potential for Bulgaria to expand her exports to the EEC in all commodity groups, with the exception of transport equipment and chemicals. The strong competitive effect in machinery coincides with a large negative price effect for that commodity group. The price effect for agricultural products, raw materials, chemicals and manufactures is predominantly positive, as indicated by Table 3.11. The total effect is mostly positive for food, raw materials, fuels and manufactures, as can be observed in Table 3.12.

From the previous analysis, one can conclude that:

- 1) Bulgaria may have suffered from the trade diverting effects of the EEC, because of the unfavorable commodity composition of her

Table 3.10: Bulgaria: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	2,074.08	5,429.47	7,894.99	14,083.02	2,140.51	15,034.92	22,063.06	27,171.26
(2)	9%	19%	25%	33%	7%	30%	33%	39%
<u>Raw Mat.</u>								
(1)	6,602.13	12,544.35	8,398.50	13,718.72	8,405.55	7,948.56	11,244.30	18,508.06
(2)	61%	72%	58%	73%	67%	59%	66%	76%
<u>Fuels</u>								
(1)	60.54	551.67	-328.98	655.53	46.89	-184.48	99.82	657.63
(2)	18%	63%	-	62%	10%	-75%	33%	71%
<u>Chem.</u>								
(1)	26.76	-57.65	-141.96	-78.82	-501.80	-607.22	-583.82	692.46
(2)	2%	-6%	-15%	-6%	-38%	-45%	-29%	24%
<u>Mach.</u>								
(1)	-	-	-	378.97	1,158.48	584.00	706.16	2,083.83
(2)	-	-	-	92%	170%	100%	108%	112%
<u>Trans.Eq.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Manuf.</u>								
(1)	191.88	-809.41	599.02	2,352.08	1,908.71	6,559.43	8,618.50	10,376.87
(2)	5%	-33%	15%	44%	25%	43%	51%	61%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures larger than one percent, have been rounded.off.

Source: Appendix A.

Table 3.11: Bulgaria: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	126.53	1,488.10	-12.16	3,483.34	2,616.62	8,425.16	15,717.13	11,952.18
(2)	.5%	5%	0%	8%	9%	17%	24%	17%
Raw Mat.								
(1)	1,274.85	1,876.43	2,759.43	1,554.82	482.02	1,515.91	1,667.85	1,559.00
(2)	12%	11%	19%	8%	4%	11%	10%	6%
Fuels								
(1)	9.82	33.20	-	32.72	2.02	-43.22	-330.24	-335.79
(2)	3%	4%	-	3%	.4%	-17%	-108%	-36%
Chem.								
(1)	120.74	-76.77	-102.16	66.62	341.97	343.94	795.83	251.05
(2)	11%	-8%	-11%	5%	26%	25%	40%	9%
Mach.								
(1)	-	-	-	33.03	-475.48	0.00	-50.16	-217.83
(2)	-	-	-	8%	-70%	-	-8%	-12%
Trans.Eq.								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
Manuf.								
(1)	808.06	5.52	2,542.36	959.14	1,267.39	3,652.29	2,964.47	670.89
(2)	20%	.2%	61%	18%	17%	24%	17%	4%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.
All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.12: Bulgaria: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	2,066.82	6,635.81	7,438.90	16,944.04	3,938.18	22,426.26	36,511.23	37,597.00
(2)	9%	23%	24%	40%	13%	44%	55%	55%
<u>Raw Mat.</u>								
(1)	7,954.38	14,582.75	11,412.83	15,629.64	9,354.16	10,051.13	13,629.54	20,926.12
(2)	74%	83%	79%	83%	74%	75%	80%	85%
<u>Fuels</u>								
(1)	80.44	607.19	-291.89	743.08	124.88	-126.65	-99.70	487.48
(2)	25%	69%	-	70%	27%	-51%	-33%	53%
<u>Chem.</u>								
(1)	68.79	-190.67	-338.31	-152.35	-355.33	-525.06	-128.87	508.72
(2)	6%	-20%	-35%	-12%	-27%	-39%	-6%	18%
<u>Mach.</u>								
(1)	-	-	-	412.00	683.00	584.00	656.00	1,866.00
(2)	-	-	-	100%	100%	100%	100%	100%
<u>Trans.Eq.</u>								
(1)	-	-	-	-	-	-	-	-
(2)	-	-	-	-	-	-	-	-
<u>Manuf.</u>								
(1)	1,007.72	-786.72	524.71	1,434.79	3,234.05	10,288.45	11,681.98	11,172.52
(2)	3%	-32%	13%	27%	43%	68%	69%	66%

(1) is the value of the effect, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

exports to the EEC.

- 2) Bulgaria is such a strong relative competitor in the market for extra-area imports of the EEC that her relative share in that market has considerably increased between 1960 and 1967.
- 3) During the period 1960-1967, Bulgaria received prices for her exports to the EEC that were above their 1959 level. She did not have to buy her relative competitive strength at the cost of a fall in her export prices.

The Effect of the EEC on the Exports of Yugoslavia to the EEC

The total effect, which is the sum of the Common Market effect, the competitive and the price effect, is an estimate of Yugoslavia's performance during 1960-1967, relative to all suppliers of the EEC. This total effect is positive for Yugoslavia's total exports to the EEC from 1960 to 1967, and it increases steadily over time, as can be seen in Table 3.13. The total effect fluctuates from 7% to 47% of Yugoslavia's yearly exports to the EEC in current prices. Part of this effect is the Common Market effect, which indicates the estimated amount of either extra-area trade diversion or creation, which is "most likely" to occur on the basis of the performance of the "average supplier" of the EEC, as measured by all imports of the EEC. This means that if Yugoslavia's exports to the EEC grew exactly at the same rate as those of the "average" extra-area supplier of the EEC in both periods prior to and after the formation of the EEC, the estimated amount of trade creation would be equal to the Common Market effect. Given the commodity composition of Yugoslavia's exports to the EEC, the Common Market effect was always positive from 1960 through 1967.

The competitive effect tells whether Yugoslavia exported more or less to the EEC than predicted on the basis of the exports of the "average" extra-area supplier of the EEC. The competitive effect for Yugoslavia's total exports to the EEC was always positive from 1960 to 1967, which indicates that Yugoslavia's share in the EEC's

Table 3.13: The Four Effects of the EEC on Yugoslavia's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	16,285.56	11,163.18	64,151.02	107,706.37	73,646.29	114,245.52	148,425.92	179,086.65
(2)	8%	7%	30%	40%	30%	39%	44%	47%
C.M.E.								
(1)	1,008.70	2,116.13	3,333.88	4,667.55	6,128.89	7,722.85	9,467.48	10,457.41
(2)	.7%	1%	2%	2%	2%	3%	3%	3%
Comp.E.								
(1)	7,624.18	1,402.91	44,951.99	76,681.01	19,654.24	42,848.21	81,080.67	118,291.41
(2)	5%	1%	21%	29%	8%	15%	24%	31%
P.E.								
(1)	7,652.68	7,644.14	5,611.04	26,357.81	47,863.16	63,674.46	57,877.77	50,337.83
(2)	5%	5%	3%	10%	20%	22%	17%	13%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

market for extra-area imports was larger than predicted on the basis of the "average" extra-area supplier of the EEC. The size of the competitive effect of total exports of Yugoslavia to the EEC ranged from a minimum of 1% of these exports in 1961 to a maximum of 31% of these exports in 1967.

The price effect, which is the difference between imports in current and constant prices of 1959, was positive in each year between 1960 and 1967. The size of the price gains ranged from a minimum of 3% of the value of Yugoslavia's exports to the EEC in 1962 to a maximum of 30% of these exports (in current prices) in 1965. The years 1961 and 1964 were the least successful for Yugoslavia, as can be observed from the small, but positive total and competitive effects.

In Tables 3.14 to 3.17, I will present the effects of the EEC on the exports of individual groups of commodities that Yugoslavia exports to the EEC. In Table 3.14, one can observe that the predicted Common Market effect is negative for food and chemicals while it is positive for all other commodity groups.

The most important table, however, is Table 3.15, indicating the competitive effect for each commodity group. Yugoslavia is a strong relative competitor in food, fuels, machinery, transport equipment and manufactures. The competitive effect for these commodity groups is mostly positive between 1960 and 1967, with some exceptions. A harvest failure in 1964, for example, caused a substantial negative competitive effect for food in that year and a

Table 3.14: Yugoslavia: Common Market Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-373.71	-787.06	-1,240.04	-1,738.33	-2,287.57	-2,887.77	-3,544.60	-4,263.71
(2)	-.5%	-1%	-1%	-2%	-3%	-3%	-3%	-3%
<u>Raw Mat.</u>								
(1)	1,233.74	2,585.18	4,063.05	5,676.06	7,437.31	9,351.12	11,434.97	12,788.93
(2)	2%	5%	7%	8%	11%	14%	17%	20%
<u>Fuels</u>								
(1)	69.22	153.32	254.79	376.62	521.80	694.05	897.79	1,137.70
(2)	4%	8%	5%	8%	25%	24%	9%	12%
<u>Chem.</u>								
(1)	-93.94	-209.77	-351.18	-522.56	-728.96	-976.10	-1,271.05	-1,621.21
(2)	-3%	-6%	-12%	-15%	-17%	-12%	-17%	-21%
<u>Mach.</u>								
(1)	102.22	218.27	349.96	499.07	667.61	858.00	1,072.79	1,314.72
(2)	15%	22%	12%	9%	12%	10%	11%	14%
<u>Trans.Eq.</u>								
(1)	11.31	24.10	38.52	54.71	72.88	93.25	115.96	141.22
(2)	3%	8%	4%	2%	1%	2%	3%	3%
<u>Manuf.</u>								
(1)	59.86	132.09	218.78	321.98	445.82	590.30	761.62	959.76
(2)	.2%	.4%	.3%	.4%	.6%	.6%	.6%	.7%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.15: Yugoslavia: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	13,771.61	295.29	15,377.76	26,569.21	-15,117.26	-1,575.75	4,394.90	31,380.04
(2)	19%	.5%	18%	24%	-18%	-1%	4%	19%
<u>Raw Mat.</u>								
(1)	-685.20	-212.06	2,774.23	9,015.10	-1,646.23	-7,962.13	-6,672.03	-11,912.92
(2)	-1.4%	-.4%	5%	13%	-2%	-12%	-10%	-19%
<u>Fuels</u>								
(1)	169.32	242.59	3,258.53	3,444.78	-138.09	1,325.92	19,188.22	11,561.69
(2)	9%	13%	68%	69%	-7%	47%	197%	119%
<u>Chem.</u>								
(1)	-1,424.96	-1,218.55	-1,449.51	-1,493.55	-2,705.51	249.57	297.38	-571.25
(2)	-50%	-33%	-51%	-44%	-63%	3%	-4%	-7%
<u>Mach.</u>								
(1)	-637.38	-578.91	928.23	2,844.20	3,787.68	9,208.64	5,437.82	6,200.40
(2)	-95%	-59%	32%	34%	67%	108%	55%	68%
<u>Trans.Eq.</u>								
(1)	-18.41	105.93	509.43	1,989.50	5,202.00	4,906.78	3,872.68	4,350.19
(2)	-4%	35%	57%	83%	93%	93%	98%	97%
<u>Manuf.</u>								
(1)	-3,550.80	2,768.62	23,553.32	34,311.77	30,271.65	36,695.18	55,156.46	64,544.18
(2)	-16%	9%	41%	50%	41%	39%	46%	53%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by total exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

small negative effect even in the following year. Most extra-area suppliers have increased their exports of machinery to the Common Market, especially during the first years of its formation. Yugoslavia was slower than the other extra-area suppliers in capturing a share of this market, but since 1962, she has increased her share of the EEC's import market of machinery. Yugoslavia is a rather weak competitor relative to all extra-area suppliers of the EEC in raw materials and chemicals.

The price effect, as shown in Table 3.16, is often of the same absolute magnitude as the competitive effect, although it does not necessarily carry the same sign. This effect is generally positive for food, raw materials, machinery and manufactures, which indicates that Yugoslavia's export prices for these products have been increasing since 1959. The price effect was always negative for fuels, which coincides with the fall in world prices for this commodity group. During 1960-1967, the signs of the price effect for chemicals and transport equipment were sometimes positive and sometimes negative, which indicates price instability in both commodity groups.

The algebraic sum of these effects is presented in Table 3.17, in the total effect for each commodity group. The total effect is positive in each year during the period 1960-1967 for food, raw materials and transport equipment. It is positive in most, but not all years, for manufactures, machinery and fuels. It is negative in most years for chemicals, which indicates that, first, Yugoslavia

Table 3.16: Yugoslavia: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-465.79	2,068.46	6,259.70	16,921.08	27,713.83	36,988.73	37,913.97	38,971.43
(2)	.6%	3%	7%	15%	33%	33%	31%	23%
Raw Mat.								
(1)	4,869.03	1,388.06	4,344.20	6,622.30	9,516.06	10,276.14	7,117.52	4,896.74
(2)	10%	3%	7%	9%	14%	16%	11%	8%
Fuels								
(1)	-16.90	-386.22	-756.11	-979.14	-661.27	-1,724.33	-13,144.55	-6,005.06
(2)	-.9%	-21%	-16%	-20%	-32%	-60%	-135%	-62%
Chem.								
(1)	584.86	835.34	-196.20	-59.08	1,514.16	1,571.84	1,151.65	1,094.75
(2)	20%	23%	-7%	-2%	35%	20%	15%	14%
Mach.								
(1)	132.46	237.82	530.45	822.41	0	-2,705.16	2,191.64	425.37
(2)	20%	24%	18%	16%	0%	-32%	22%	5%
Trans.Eq.								
(1)	150.74	-93.56	72.07	65.85	28.73	-52.39	-356.54	-337.51
(2)	34%	-31%	8%	3%	.5%	-1%	-9%	-8%
Manuf.								
(1)	2,398.28	3,594.24	5,611.04	2,964.39	9,751.65	19,319.63	23,004.08	11,292.11
(2)	11%	11%	10%	4%	13%	21%	19%	9%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.
All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.17: Yugoslavia: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	12,932.11	1,576.69	20,397.42	41,751.96	10,309.00	32,525.21	38,764.27	78,826.80
(2)	18%	2%	23%	37%	12%	29%	32%	47%
<u>Raw Mat.</u>								
(1)	5,417.57	3,761.18	11,181.48	21,313.46	15,307.14	11,665.13	11,880.46	5,772.70
(2)	11%	7%	19%	30%	23%	18%	18%	8%
<u>Fuels</u>								
(1)	221.64	9.69	2,757.21	2,842.26	-277.56	295.64	6,941.46	6,694.30
(2)	12%	.5%	58%	57%	-13%	10%	71%	69%
<u>Chem.</u>								
(1)	-934.04	-592.98	-1,996.89	-2,075.19	-1,920.31	845.31	-416.78	-1,097.70
(2)	33%	-16%	-70%	-61%	-45%	11%	-6%	-14%
<u>Mach.</u>								
(1)	-402.70	-122.82	1,808.64	4,165.68	4,455.29	7,361.48	8,702.25	7,940.40
(2)	-60%	-13%	62%	78%	79%	86%	88%	87%
<u>Trans.Eq.</u>								
(1)	143.64	36.47	620.02	2,110.06	5,303.61	4,947.64	3,632.10	4,153.90
(2)	33%	12%	69%	88%	95%	94%	92%	92%
<u>Manuf.</u>								
(1)	-1,092.66	6,494.95	29,383.14	37,598.14	40,469.12	56,605.11	78,922.16	76,796.00
(2)	-5%	21%	52%	55%	55%	60%	66%	63%

(1) is the value of the effect, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

is a weak relative competitor of chemicals in the EEC's import market, and, secondly, that Yugoslavia may have been strongly affected by the trade diverting effects of the EEC in this commodity group.

On the basis of the model, one can conclude that:

- 1) Yugoslavia has a commodity composition which is favorable vis-a-vis the common external tariff of the EEC.
- 2) Yugoslavia has shared favorably in the overall extra-area trade creating effects of the EEC.
- 3) During the period 1960-1967, Yugoslavia has increased her share in the EEC's import market relative to all other extra-area suppliers. She is a strong relative competitor for food, machinery, transport equipment and manufactures, but a weak one in raw materials and chemicals.
- 4) During 1960-1967, the prices of Yugoslavia's total exports to the Common Market were above their 1959 level.

The Effect of the EEC on Albania's Exports to the EEC.

Albania has a very favorable composition of her exports to the EEC. This can be concluded from the positive Common Market Effect of her total exports to the EEC, as represented in Table 3.18. In spite of this favorable commodity composition of her exports to the EEC, from 1960 to 1962, Albania lost a large part of her market share in the EEC's market for extra-area imports.

This conclusion can be reached from the negative competitive effect for total exports of Albania to the EEC from 1960 to 1962, represented in Table 3.18. The weak relative competitive position completely overshadowed the positive Common Market effect. The price effect for total exports to the EEC during 1960-1962 was positive, indicating that Albania's export prices were above their 1959 level. Excessively high export prices may have been the cause of the substantial negative competitive effect from 1960 to 1962. From 1963 on, the situation improved. Albania lowered its export prices relative to their 1959 level and increased her competitive position in the EEC's market for extra-area imports. The competitive effect for total exports, represented in Table 3.18, ranged from 18% to 71% of Albania's yearly exports to the EEC. Between 1963 and 1967, therefore, Albania received more of the trade creating effects of the EEC, than the "average" extra-area supplier of the EEC.

Albania's extremely successful performance from 1963 to 1967 was a reaction against her relative weak competitive position in

Table 3.18: The Four Effects of the EEC on Albania's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	-688.39	-416.81	-669.35	1,960.98	1,226.18	390.17	873.94	1,512.40
(2)	-246%	-72%	-183%	65%	53%	26%	43%	55%
C.M.E.								
(1)	26.52	55.56	87.33	122.00	159.85	200.98	251.04	294.31
(2)	10%	10%	24%	4%	7%	13%	12%	11%
Comp.E.								
(1)	-767.51	-486.63	-835.22	1,827.25	1,253.74	281.74	488.52	1,930.43
(2)	-274%	-83%	-228%	60%	54%	18%	24%	71%
P.E.								
(1)	52.60	14.26	78.54	11.73	-187.41	-92.55	134.38	-712.34
(2)	8%	2%	22%	0%	-8%	-6%	7%	-26%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

1960-1962 and is similar to the reaction of Hungary, previously described.

From this analysis one can conclude that:

- 1) There are two separate periods in Albania's export performance to the EEC. From 1960 to 1962, Albania did not share in the extra-area trade expanding effects of the EEC, but from 1963 to 1967, Albania did share very favorably in the overall extra-area trade expanding effect of the EEC.
- 2) Albania was a weak relative competitor in the EEC's market for extra-area imports between 1960-1962, but a strong relative competitor since 1963.
- 3) From 1960 to 1963, the prices of Albania's exports to the EEC were above their 1959 level, but from 1964 on, a fall in these prices can be observed, bringing their level below that of 1959.

The Effect of the EEC on Hungary's Exports to the EEC

The Common Market effect for Hungary's total exports to the EEC is shown in Table 3.19. For the period studied, the Common Market effect is small but positive, which indicates that the commodity composition of Hungary's exports to the Community was not very favorable towards the overall trade expanding effects of the EEC.

Table 3.19 represents the competitive effect for total exports of Hungary to the EEC. This effect was negative from 1960 to 1962 and in 1964, indicating that in these four years Hungary was a weak competitor in the EEC's market for extra-area imports, as compared to the "average" supplier of the EEC. From 1963 to 1967, excluding 1964, the competitive effect was positive, which shows that Hungary's competitive position improved over the years.

The price effect for Hungary's total exports to the EEC is positive between 1960 and 1967, with the exception of 1961. This demonstrates further the strength of the Hungarian foreign sector, insofar as, during the 1960's, the prices of her exports to the EEC increased steadily and remained above their 1959 level. This favorable movement in Hungary's export prices occurred simultaneously with the increase in her share in the EEC's market for extra-area imports.

The total effect (Table 3.19) shows that, since 1963, Hungary shared favorably in the overall trade expanding effects of the EEC and even more than the "average" extra-area supplier of the EEC.

Table 3.19: The Four Effects of the EEC on Hungary's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	-14,899.58	-8,893.80	-7,922.64	31,957.00	13,262.49	46,043.87	66,543.56	65,930.99
(2)	-24%	-12%	-10%	26%	12%	30%	37%	36%
C.M.E.								
(1)	197.61	425.75	691.95	999.14	1,352.12	2,101.29	2,225.54	2,759.78
(2)	.3%	.5%	.8%	.8%	1.2%	1.3%	1.2%	1.4%
Comp.E.								
(1)	-16,120.55	-8,014.29	-14,099.35	25,464.45	-1,631.32	21,896.08	41,068.56	37,687.37
(2)	-26%	-11%	-18%	20%	-1.4%	14%	23%	20%
P.E.								
(1)	1,023.36	-1,305.26	5,484.76	5,493.50	13,541.59	22,046.50	23,249.46	25,483.84
(2)	2%	-2%	7%	4%	12%	15%	13%	14%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.20: Hungary: Common Market Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-321.15	-676.36	-1,065.63	-1,493.83	-1,965.83	-2,481.61	-3,046.05	-3,664.02
(2)	-1%	-1%	-2%	-2%	-4%	-3%	-3%	-3%
Raw Mat.								
(1)	256.91	538.33	846.07	1,181.96	1,548.71	1,947.23	2,381.16	2,851.40
(2)	2%	5%	6%	7%	8%	11%	11%	13%
Fuels								
(1)	99.49	220.37	366.24	541.37	750.04	997.64	1,290.50	1,635.35
(2)	4%	8%	12%	12%	24%	33%	36%	32%
Chem.								
(1)	-52.01	-116.13	-194.41	-289.29	-403.56	-198.38	-703.66	-897.52
(2)	-3%	-8%	-10%	-11%	-13%	-6%	-17%	-16%
Mach.								
(1)	169.50	361.93	580.28	827.52	1,106.98	1,423.57	1,177.96	2,180.00
(2)	9%	17%	16%	27%	31%	46%	34%	42%
Trans.Eq.								
(1)	18.29	38.97	62.28	88.46	117.86	150.78	187.51	228.49
(2)	8%	19%	29%	21%	109%	35%	30%	56%
Manuf.								
(1)	26.58	58.64	97.12	142.95	197.92	262.06	338.12	426.08
(2)	0%	1%	1%	1%	1%	1%	1%	1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.21: Hungary: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-12,111.84	-7,981.77	-16,389.28	9,763.48	-12,981.63	10,191.16	18,332.21	20,064.54
(2)	-32%	-17%	-38%	13%	-23%	11%	17%	17%
Raw Mat.								
(1)	-1,113.88	3,124.57	3,350.89	8,559.12	7,574.54	1,542.35	7,210.21	7,055.63
(2)	-10%	29%	23%	47%	38%	9%	32%	32%
Fuels								
(1)	-239.68	313.76	-114.54	1,088.52	-252.41	-418.23	-365.39	494.15
(2)	-11%	11%	-4%	23%	-8%	-14%	-10%	10%
Chem.								
(1)	-871.67	-1,320.62	-1,098.03	-35.23	-338.71	-1,201.91	146.73	1,458.59
(2)	-54%	-89%	-58%	-1%	-11%	-35%	4%	26%
Mach.								
(1)	65.22	113.92	1,357.85	208.37	-791.89	91.05	2,231.52	1,462.64
(2)	3%	5%	37%	7%	-22%	3%	42%	28%
Trans.Eq.								
(1)	-207.86	-284.13	-315.56	-126.18	-503.65	-251.94	-128.86	-449.58
(2)	-92%	-139%	-147%	-30%	-466%	-58%	-21%	-110%
Manuf.								
(1)	-1,640.84	-1,980.02	-890.68	6,006.37	5,662.43	11,943.60	13,642.14	7,601.40
(2)	-22%	-20%	-7%	32%	21%	39%	39%	24%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

The Common Market effect for the seven commodity groups, represented in Table 3.20, indicates that the commodity composition of Hungary's exports to the Common Market was not very favorable relative to the trade diverting effects in agricultural products and chemicals.

The competitive effect, represented in Table 3.21, shows that this country is a strong relative competitor in raw materials, machinery and manufactures, but a weak relative competitor in fuels, chemicals and transport equipment. For food, the competitive effect is unclear. It was negative from 1960 to 1962 and 1964, and ranged from -17% to -38% of the yearly exports of Hungary to the EEC. From 1965 to 1967 and in 1963, it was positive, ranging from 11% to 17% of Hungary's yearly exports to the EEC.

Table 3.22 shows that the price effect is mostly positive for food, chemicals, transport equipment and manufactures, but predominantly negative for fuels and machinery.

The total effect, shown in Table 3.23, indicates that Hungary gained more in her exports of raw materials, machinery and manufactures to the EEC, than the "average" extra-area supplier.

From this analysis, one can conclude that:

- 1) Hungary shared favorably in the extra-area trade expanding effects of the EEC, although the commodity composition of her exports to the EEC was not very favorable.
- 2) From 1960 to 1963, Hungary's share in the EEC's market for extra-area imports declined, but her position improved strongly between 1964 and 1967. Hungary is a strong relative competitor for raw

Table 3.22: Hungary: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-1,081.91	669.48	3,495.75	8,347.75	6,856.19	17,598.75	21,242.00	23,450.67
(2)	-3%	1%	8%	11%	12%	19%	20%	20%
Raw Mat.								
(1)	2,803.86	-2,568.11	589.84	-1,970.17	36.88	2,884.97	890.80	661.04
(2)	25%	-24%	4%	-11%	.2%	17%	4%	3%
Fuels								
(1)	-47.95	-391.06	-107.43	-81.78	-776.06	-1,212.35	-1,304.54	-1,426.66
(2)	-2%	-14%	-4%	-2%	-25%	-40%	-36%	-28%
Chem.								
(1)	432.73	542.35	483.18	-43.68	-374.83	932.54	231.90	61.38
(2)	27%	37%	26%	-2%	-12%	27%	6%	1%
Mach.								
(1)	-122.04	-118.19	-117.19	137.63	1,355.31	-354.99	-733.43	-506.98
(2)	-6%	-5%	-3%	5%	38%	-11%	-14%	-10%
Trans.Eq.								
(1)	-3.47	13.35	13.95	-15.94	-	22.40	26.69	70.61
(2)	-2%	7%	6%	-4%	-	5%	4%	17%
Manuf.								
(1)	-957.86	546.92	1,126.47	-880.31	5,694.54	2,175.18	2,895.84	3,173.78
(2)	-13%	6%	9%	-5%	22%	7%	8%	10%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-supplier to the EEC, in current prices.
All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.23: Hungary: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-13,514.90	-7,988.65	-13,958.97	16,617.40	-8,091.27	25,308.30	36,528.36	39,851.19
(2)	-36%	-17%	-32%	22%	-15%	27%	34%	35%
<u>Raw Mat.</u>								
(1)	1,946.89	1,094.79	4,786.80	7,770.91	9,160.13	6,374.55	10,482.17	10,568.07
(2)	17%	10%	32%	43%	46%	37%	48%	47%
<u>Fuels</u>								
(1)	-188.14	143.07	144.27	1,548.11	-278.43	-632.94	-379.43	702.84
(2)	-8%	5%	5%	33%	-9%	-21%	-10%	14%
<u>Chem.</u>								
(1)	-490.95	-894.40	-809.26	-368.20	-367.44	-467.75	-325.03	622.45
(2)	-30%	-60%	-43%	-14%	-12%	-14%	-8%	11%
<u>Mach.</u>								
(1)	112.68	357.66	1,820.94	1,173.52	1,670.40	1,159.63	3,276.05	3,135.66
(2)	6%	16%	50%	38%	46%	37%	62%	61%
<u>Trans.Eq.</u>								
(1)	-193.04	-231.81	-239.33	-53.66	-385.79	-78.76	85.34	-150.48
(2)	-86%	-114%	-11%	-13%	-357%	-18%	14%	-37%
<u>Manuf.</u>								
(1)	-2,572.12	-1,374.46	332.91	5,269.01	11,554.89	14,380.84	16,876.10	11,201.26
(2)	-34%	-14%	3%	28%	44%	47%	48%	36%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

materials, machinery and manufactures, but a weak relative competitor in fuels, chemicals and transport equipment.

- 3) The prices of Hungary's total exports to the EEC were well above their 1959 level and increased steadily over time.

The Effect of the EEC on the Exports of the German Democratic Republic (GDR) to the EEC.

The exports of the GDR to the EEC do not include exports of this country to the German Federal Republic (GFR), since these are registered as intra-German trade. My figures will, therefore, only partially estimate the effect of the EEC on the exports of the GDR to the EEC, not including the GFR.

The GDR received a share of the extra-area trade expanding effects of the Common Market. This can be seen in the positive Common Market effect for total exports of the GDR to the EEC, represented in Table 3.24.

The competitive effect for total exports, shown in Table 3.24, is also positive between 1960 and 1967, with the exception of 1962. This shows that, from 1960 to 1967, the GDR, measured in constant prices and exchange rates of 1959, shared more in the trade expanding effects than the "average" extra-area supplier of the EEC.

From 1960 to 1967, the export prices of the GDR's total exports to the EEC have been below their 1959 level, as can be concluded from the negative price effect represented in Table 3.24.

The total effect, shown in Table 3.24, is positive, with the exception of 1962. This indicates that, measured in current prices, the GDR still shared in the EEC's extra-area trade expanding effects to a larger extent than the "average" extra-area supplier of the EEC.

Table 3.24: The Four Effects of the EEC on the G.D.R.'s Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	11,983.24	1,136.94	-5,784.90	4,106.68	7,453.51	13,583.61	25,610.11	36,743.34
(2)	21%	2%	-12%	7%	11%	16%	25%	31%
C.M.E.								
(1)	502.72	1,199.78	1,630.35	2,258.01	2,929.46	3,643.41	4,399.92	5,193.99
(2)	1%	2%	3%	4%	4%	4%	4%	4%
Comp.E.								
(1)	13,847.19	1,312.41	-5,491.61	4,831.95	7,011.58	15,730.60	24,074.43	33,752.38
(2)	24%	3%	-12%	8%	10%	19%	24%	28%
P.E.								
(1)	-2,366.67	-1,375.25	-1,923.64	-2,983.28	-2,587.53	-5,790.40	-2,864.24	-2,203.03
(2)	-4%	-3%	-4%	-5%	-4%	-7%	-2.8%	-2%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.25: G.D.R.: Common Market Effect for each Commodity Group in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-20.67	-43.52	-68.57	-96.13	-126.49	-159.68	-195.90	-235.77
(2)	-3%	-2%	-6%	-2%	-1%	-2%	-1%	-1%
<u>Raw Mat.</u>								
(1)	62.71	285.86	206.53	288.53	378.05	475.33	581.26	696.04
(2)	1%	13%	7%	7%	5%	6%	8%	5%
<u>Fuels</u>								
(1)	29.66	65.69	109.18	161.38	223.58	297.38	384.68	487.48
(2)	3%	3%	6%	6%	7%	8%	12%	8%
<u>Chem.</u>								
(1)	-324.81	-725.29	-1,214.26	-1,806.83	-2,520.50	-3,375.01	-4,394.86	-5,605.62
(2)	-3%	-8%	-14%	-19%	-22%	-29%	-39%	-38%
<u>Mach.</u>								
(1)	673.92	1,439.04	2,307.21	3,290.24	4,401.38	5,656.63	7,072.69	8,667.69
(2)	8%	14%	20%	30%	41%	41%	48%	57%
<u>Trans.Eq.</u>								
(1)	36.48	77.76	124.24	176.48	235.12	300.80	374.00	455.84
(2)	3%	7%	23%	9%	7%	7%	9%	17%
<u>Manuf.</u>								
(1)	45.43	100.24	166.02	244.34	338.32	447.96	517.97	728.33
(2)	.2%	.4%	.7%	.8%	1.2%	1.4%	1.6%	2.1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.26: G.D.R.: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	3,130.64	-870.94	-68.57	2,214.93	5,095.46	8,144.56	22,655.10	29,544.20
(2)	54%	-40%	-6%	44%	56%	76%	86%	88%
Raw Mat.								
(1)	5,327.44	-623.76	206.53	1,170.38	1,183.54	4,116.76	4,258.83	9,896.08
(2)	63%	-29%	7%	27%	18%	53%	61%	76%
Fuels								
(1)	269.25	1,516.14	109.18	1,984.23	2,409.60	2,863.12	2,036.98	5,469.96
(2)	31%	79%	6%	76%	75%	78%	66%	87%
Chem.								
(1)	-2,598.68	-5,280.65	-1,214.26	-7,973.58	-8,084.63	-9,463.09	-11,627.26	-9,528.36
(2)	-25%	-59%	-14%	-84%	-72%	-82%	-102%	65%
Mach.								
(1)	1,196.81	3,143.86	2,307.21	455.93	-1,355.88	646.58	-600.05	-642.55
(2)	15%	30%	20%	4%	-13%	5%	-4%	-4%
Trans.Eq.								
(1)	-27.81	59.16	124.24	900.83	2,260.73	2,754.01	2,779.87	924.86
(2)	-3%	6%	23%	43%	66%	66%	67%	34%
Manuf.								
(1)	6,549.54	3,368.60	166.02	6,079.23	5,602.76	6,668.66	4,570.96	-1,911.81
(2)	29%	15%	1%	22%	21%	21%	13%	-6%

(1) is the value of the effects, in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

The commodity composition of the GDR's exports to the EEC is favorable vis-a-vis the extra-area trade creating effects of the EEC. This can be concluded from the Common Market effect for the seven commodity groups, shown in Table 3.25.

In spite of the trade diverting effects of the EEC in agricultural products, the exports of food from the GDR to the EEC increased six times between 1960 and 1967. The positive competitive effect overshadows the negative Common Market effect for agricultural products completely (see Tables 3.25 and 3.26). The GDR is a strong competitor in food, raw materials, fuels, transport equipment and manufactures, relative to the "average" extra-area supplier of the EEC, as indicates in Table 3.26. The GDR is a weak relative competitor for chemicals; in 1964, 1966 and 1967 it was also a weak competitor for machinery. In the other years between 1960-1963 and in 1965, the GDR was a strong relative competitor for machinery in the EEC's market for extra-area imports.

The price effect for the seven commodity groups is represented in Table 3.27. In the 1960's, the prices of the GDR's exports to the EEC of food, fuels, machinery and manufactures were mostly below their 1959 level. From 1960 to 1967, the prices of the GDR's exports of raw materials and transport equipment to the EEC, were predominantly above their 1959 level.

The total effect for each commodity group, as shown in Table 3.28, indicates that for raw materials, fuels, machinery, transport equipment and manufactures, the GDR shared in the trade creating

Table 3.27: G.D.R.: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-670.31	-402.92	-275.08	-946.89	-39.97	-1,662.01	-591.20	-439.96
(2)	-12%	-19%	-26%	-19%	-.4%	-16%	-2%	-1%
<u>Raw Mat.</u>								
(1)	731.61	108.99	268.51	271.86	2,267.52	517.49	-668.92	-503.47
(2)	9%	5%	9%	10%	35%	7%	-10%	-4%
<u>Fuels</u>								
(1)	-159.48	-443.94	-388.20	-469.30	-417.92	-572.14	-533.64	-982.88
(2)	-18%	-23%	-22%	-18%	-13%	-16%	-17%	-16%
<u>Chem.</u>								
(1)	11.36	160.93	-34.93	345.94	386.37	104.07	25.75	-1,061.20
(2)	1%	2%	-.4%	4%	3%	1%	.2%	-7%
<u>Mach.</u>								
(1)	-886.19	-1,502.60	-1,189.76	-285.70	71.38	-285.71	396.69	-817.45
(2)	-11%	-15%	-11%	-3%	.6%	-2%	3%	-5%
<u>Trans.Eq.</u>								
(1)	269.33	47.64	65.92	48.73	-45.97	101.23	-83.59	248.14
(2)	24%	5%	12%	2%	-1%	2%	-2%	9%
<u>Manuf.</u>								
(1)	1,262.82	656.65	-370.10	-1,947.92	-4,808.94	3,993.33	-1,409.33	1,353.79
(2)	6%	3%	-2%	-7%	-18%	-13%	-4%	4%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.28: G.D.R.: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	2,439.66	-1,317.38	-2,620.75	1,171.91	4,929.00	6,322.87	21,868.00	28,868.47
(2)	42%	-61%	-246%	23%	55%	59%	83%	86%
<u>Raw Mat.</u>								
(1)	6,121.76	-228.91	636.76	1,730.77	3,829.11	5,109.58	4,171.17	10,088.65
(2)	73%	-11%	21%	41%	59%	65%	60%	78%
<u>Fuels</u>								
(1)	139.43	1,137.89	910.99	1,676.31	2,215.26	2,588.36	1,888.02	4,974.56
(2)	16%	59%	51%	64%	69%	70%	61%	79%
<u>Chem.</u>								
(1)	-2,912.13	-5,845.01	-8,365.09	-9,434.47	-10,218.76	-12,734.03	-15,996.37	-16,195.18
(2)	-28%	-65%	-99%	-99%	-91%	-111%	-141%	-110%
<u>Mach.</u>								
(1)	984.54	3,080.30	3,891.28	3,460.47	3,116.88	6,017.50	6,869.33	7,207.69
(2)	12%	30%	35%	32%	29%	43%	46%	47%
<u>Trans.Eq.</u>								
(1)	278.00	184.56	-356.40	1,126.04	2,449.88	3,156.04	3,070.36	1,628.84
(2)	25%	18%	-65%	54%	71%	75%	74%	59%
<u>Manuf.</u>								
(1)	4,931.98	4,125.49	118.31	4,375.65	1,132.44	3,123.29	3,739.60	170.31
(2)	22%	18%	1%	16%	4%	10%	11%	0%

(1) is the value of the effect in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.
All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

effects of the EEC more than the "average" extra-area supplier to the EEC. It also shows that the GDR suffered more from the extra-area trade diversion in chemicals caused by the EEC than the "average" extra-area supplier.

From these observations, one can conclude that:

- 1) The GDR has shared favorably in the overall extra-area trade expanding effect of the Common Market.
- 2) The GDR's share in the EEC's market for extra-area imports has increased, relative to the share of the "average" extra-area supplier. The GDR is a relatively strong competitor for all commodity groups, except chemicals, in the EEC's import market.
- 3) It may be that this strong relative competitive position came at the cost of a fall in the GDR's export prices.

The Effect of the EEC on Poland's Exports to the EEC

The effect of the EEC on Poland's total exports to the EEC is presented in Table 3.29. From 1960 to 1967, Poland shared favorably in the trade expanding effects of the EEC, except in the year 1964, when the total effect for all Polish exports to the EEC was negative.

The commodity composition of Poland's exports to the EEC was favorable towards the trade expanding influence of the EEC, which can be concluded from the positive Common Market effect between 1960 and 1967.

Poland is a weak competitor in the EEC's market for extra-area suppliers of the EEC. Between 1961 and 1966, the competitive effect is negative and large, relative to the actual exports of Poland to the EEC in current prices.

The predominantly positive price effect indicates that, during the 1960's, the prices of Poland's exports to the EEC were above their 1959 level. The gain from favorable export prices partially compensated for Poland's weak competitive position as measured in constant prices and exchange rates of 1959.

A detailed analysis of the four effects for each of the seven commodity groups will give an explanation of my previous conclusions related to Poland's total exports to the EEC.

The bulk of Poland's exports to the EEC is in the form of agricultural products for which the EEC has a trade diverting effect,

Table 3.29: The Four Effects of the EEC on Poland's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	31,158.24	5,924.39	2,380.51	5,473.45	-17,220.97	22,592.19	28,460.50	30,336.38
(2)	18%	3%	1%	3%	-10%	10%	11%	11%
C.M.E.								
(1)	1,163.19	2,553.64	4,212.19	6,179.22	8,498.64	11,225.10	14,425.83	18,150.09
(2)	.7%	1.6%	2.6%	3.5%	5.1%	5.1%	5.6%	7%
Comp.E.								
(1)	42,156.52	-14,918.70	-878.34	-15,194.62	-38,100.96	-19,643.04	-17,500.07	6,923.26
(2)	24.6%	-9.6%	-5.4%	-8.5%	-22.7%	-8.9%	-7.2%	2.7%
P.E.								
(1)	-12,161.47	18,289.45	-953.34	14,488.85	12,381.35	31,010.13	31,534.74	19,100.55
(2)	-7.1%	11.7%	-.5%	81%	7.4%	14%	13%	7.4%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

as indicated by Table 3.30. In 1960, the share of agricultural products in Poland's exports to the EEC was 56%, but by 1967 this share fell to 43%. This shift in the composition of Poland's exports to the EEC was favorable in relation to the trade diverting effects of the EEC on her members' imports of agricultural products. Although chemicals are a minor part in the exports of Poland to the EEC, the trade diverting effects of the EEC were considerable as can be observed in Table 3.30. The share of chemicals in Poland's total exports to the EEC was 7.5% in 1960. It was unfavorable that this did not change between 1960 and 1967, considering the trade diverting effects of the EEC in this commodity group. The share of fuels in Poland's total exports to the EEC fell from 14% to 13% in spite of the trade creating effects of the EEC for fuels. This can be explained by the fact that Poland was a major exporter of industrial coal to the EEC and that, in the 1960's, a substitution of coal for oil took place in the EEC countries. In addition, the EEC countries buy most of the industrial coal they need from their partners, Germany, France and Belgium which are major producers, while virtually all crude oil and some oil products are imported from non-members. The share of raw materials, machinery, transport equipment and especially manufactured products in total exports of Poland to the EEC, increased between 1960 and 1967. Because the EEC had a trade expanding effect on her members' imports of these commodity groups, it is clear that Poland has profited from the shift in the commodity composition of her exports to the EEC. Both

Table 3.30: Poland: Common Market Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-402.35	-847.38	-1,335.07	-1,871.53	-2,962.87	-3,109.06	-3,816.22	-4,590.44
(2)	-4%	-1.1%	-1.7%	-2.1%	-3.5%	-3.3%	-3.2%	-4.1%
<u>Raw Mat.</u>								
(1)	443.63	929.58	1,461.00	2,041.02	2,674.33	3,362.51	4,111.82	4,923.83
(2)	1.8%	3.5%	4.9%	6.4%	7.6%	9%	8.5%	9.5%
<u>Fuels</u>								
(1)	1,265.05	2,801.99	4,656.64	6,883.35	9,356.51	12,684.83	16,408.42	20,793.16
(2)	5.1%	11%	18.6%	25.2%	35.8%	45.5%	65%	57.44%
<u>Chem.</u>								
(1)	-284.16	-634.52	-1,062.30	-1,580.71	-2,205.06	-2,952.63	-3,844.83	-4,904.08
(2)	-2.2%	-5%	10%	-15.2%	-17.4%	-21.7%	-26.5%	-25%
<u>Mach.</u>								
(1)	79.67	170.11	272.74	388.95	520.30	668.69	836.08	1,024.63
(2)	24.5%	10.3%	21.5%	22%	29.9%	26.2%	27.1%	25%
<u>Trans. Eq.</u>								
(1)	20.25	43.16	68.96	97.06	129.31	165.44	207.61	252.99
(2)	1.5%	4.6%	2.8%	-	7.7%	9.2%	6.3%	6.4%
<u>Manuf.</u>								
(1)	41.10	90.70	150.22	221.08	306.12	405.32	522.95	659.00
(2)	.3%	.9%	1%	1.3%	1.5%	2.8%	1.9%	2.1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.31: Poland: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	44,396.49	161.44	8,304.40	515.57	-15,971.70	11,446.55	1,156.96	-3,916.27
(2)	46%	2%	10.4%	.5%	-22.4%	12.3%	1%	-3.5%
Raw Mat.								
(1)	7,808.20	4,319.11	10,705.61	12,105.44	9,881.88	14,785.86	17,389.72	31,287.18
(2)	32.5%	16.4%	36%	38.1%	27.9%	39.6%	36%	60.3%
Fuels								
(1)	-7,041.41	-10,691.21	-14,597.09	-18,295.04	-24,515.03	-31,680.12	-34,304.12	-34,744.88
(2)	-28.5%	-42.1%	-58.3%	-67.1%	-92%	-113.5%	-135.8%	-95.9%
Chem.								
(1)	-773.55	-2,885.61	-3,775.94	-5,144.15	-3,476.82	-4,596.92	-6,937.53	-4,387.76
(2)	-5.9%	-22.5%	-35.4%	-49.5%	-27.5%	-33.7%	-47.8%	-22.3%
Mach.								
(1)	-602.24	612.90	-54.62	267.01	504.60	963.21	1,881.20	2,555.72
(2)	-185.3%	37.2%	-4.3%	15.1%	28.9%	37.6%	60.8%	62.4%
Trans.Eq.								
(1)	1,713.34	1,044.87	2,580.90	-616.79	-497.33	1,070.17	7,300.56	3,067.08
(2)	135.3%	110.3%	105.1%	-	-294.2%	59.4%	220.5%	77%
Manuf.								
(1)	-3,344.31	-7,480.20	-4,041.60	-4,026.66	-4,026.56	-11,630.99	-3,986.86	-784.33
(2)	-26.9%	-76.4%	-27.9%	-23.8%	-20.1%	-81.6%	-14.3%	-2.4%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

the shifts in, and the overall composition of Poland's export commodity mix to the EEC, were favorable with respect to the external trade expanding effects of the European Common Market.

Poland is a weak relative competitor in fuels, chemicals and manufactures, but a strong relative competitor in agricultural products, raw materials, machinery and transport equipment. (Table 3.31). The competitive strength in machinery and transport equipment, as indicated by the model, is partly the result of the extremely low level of exports of these products to the EEC during the 1950's. Poland's share of raw materials, agricultural products, machinery and transport equipment in the EEC's market for extra-area imports has been growing faster between 1960-1967 than the share of the "average" extra-area supplier of the EEC. In spite of this favorable development in raw materials, agricultural products, machinery and transport equipment, I concluded earlier that the share of Poland's total exports to the EEC was falling relative to the share of the "average" extra-area supplier, where both shares are measured in constant prices and exchange rates of 1959.

During 1960-1967, the prices of Poland's exports of food, raw materials and chemicals to the EEC, were generally above their 1959 level. The prices of Poland's exports of fuels and transport equipment to the EEC were lower during 1960-1967 than in 1959. This can be concluded from the negative price effect for these commodity groups presented in Table 3.32. It can also be concluded from this Table, that during 1960-1967, the prices of fuels steadily declined.

Table 3.32: Poland: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-12,760.01	11,850.21	867.91	15,417.81	9,691.46	22,968.70	33,222.80	26,608.46
(2)	-13.3%	14.9%	1%	17.1%	13.5%	24.7%	27.7%	23.7%
Raw Mat.								
(1)	-449.98	4,301.77	216.65	-315.20	4,289.22	5,068.86	6,991.11	-4,804.89
(2)	-1.8%	16.3%	.7%	-.9%	12.1%	13.6%	14.4%	-9.2%
Fuels								
(1)	-644.32	-494.94	-1,691.15	-1,107.50	-1,594.16	-2,847.00	-7,786.51	-5,147.91
(2)	-2.6%	-1.9%	-6.7%	-4%	-5.9%	-10.2%	-30.8%	-14.2%
Chem.								
(1)	2,541.70	3,297.98	797.43	510.42	-425.69	1,033.79	1,346.65	1,849.70
(2)	19.5%	2.5%	7.4%	4.9%	-3.3%	7.5%	9.2%	9.4%
Mach.								
(1)	8.44	8.40	176.50	221.54	-189.85	-92.62	-571.11	-446.70
(2)	2.5%	.5%	13.9%	12.5%	-10.8%	-3.6%	-18.4%	-10.9%
Trans.Eq.								
(1)	-920.46	-623.57	-697.91	-	-6.80	187.56	-4,792.38	41.46
(2)	-72.7%	-65.8%	-28.4%	-	-4%	10.4%	-144.7%	1%
Manuf.								
(1)	73.16	-50.40	-622.77	-238.22	617.17	4,690.84	3,124.18	1,000.43
(2)	.5%	-.5%	-4.3%	-1.4%	3%	32.9%	11.2%	3.1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

The price effect for machinery indicates that prices increased between 1960 and 1963, but declined between 1964 and 1967; while the price effect for manufactured products shows a fall in Poland's export prices between 1960 and 1963, it also shows a rise in prices between 1964 and 1967. The prices of Poland's total exports to the EEC during the period 1960-1967 were above their level of 1959.

In spite of the trade diverting effects of the EEC on her members' imports of agricultural products, the total effect for this commodity group was positive as shown in Table 3.33. Poland has especially gained from the formation of the EEC in her exports to the community of raw materials, machinery and transport equipment. Although the EEC had a trade expanding effect on her members' extra-area imports of fuels, Poland's exports of fuels to the EEC have suffered from the formation of the European Common Market for reasons previously explained. The total effect for chemicals and manufactures is negative, indicating a decline in Poland's share of the EEC's market for extra-area imports of these products. The total effect of the EEC on Poland's total exports to the EEC was positive and indicates that Poland has shared favorably in the overall extra-area trade expanding effects of the EEC.

From the previous analysis, one can conclude that:

- 1) Poland has a commodity composition of her exports to the EEC which is favorable towards the extra-area trade expanding influence of the EEC. Poland has shared favorably in the trade expanding effects of the EEC.

Table 3.33: Poland: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	31,234.13	11,164.27	7,837.24	14,061.85	-8,743.11	31,306.19	30,563.54	18,101.75
(2)	32.6%	14.1%	9.8%	15.6%	-12.2%	33.7%	25.5%	16.1%
Raw Mat.								
(1)	7,801.85	9,055.46	12,383.26	13,831.26	16,845.43	23,217.23	28,492.65	31,406.12
(2)	32.5%	36.3%	41.7%	43.6%	47.6%	62.3%	59%	60.6%
Fuels								
(1)	-6,420.68	-8,384.16	-11,631.60	-12,519.19	-16,572.68	-21,843.09	-25,682.21	-19,099.63
(2)	26%	-33%	-46.5%	-45.9%	-62.2%	-78.2%	-101.7%	-52.7%
Chem.								
(1)	1,483.99	-222.15	-4,040.81	-6,214.44	-6,107.57	-6,515.76	-9,435.71	-7,442.14
(2)	11.4%	-1.7%	-37.9%	-59.8%	-48.3%	-47.7%	-65%	-37.9%
Mach.								
(1)	-514.13	791.41	394.62	877.50	835.82	1,539.28	2,146.17	3,133.65
(2)	-158.1%	48%	31.1%	49.6%	47.9%	60.2%	69.4%	76.5%
Trans.Eq.								
(1)	803.13	464.46	1,951.95	-519.73	-374.82	1,423.17	2,715.79	3,361.53
(2)	63.4%	49%	79.5%	-	-221.7%	79%	82%	84.4%
Manuf.								
(1)	3,230.05	-7,439.90	-4,514.15	-4,043.80	-3,103.27	-6,534.83	-339.73	875.10
(2)	26%	76%	-31.1%	-23.9%	-15.5%	-45.8%	-1.2%	2.7%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

- 2) Considering her total exports to the EEC, Poland is a weak competitor in the EEC's market for extra-area imports relative to the "average" extra-area supplier of the EEC.
Poland is a weak competitor in fuels, chemicals and manufactures but a strong one in agricultural products, raw materials, machinery and transport equipment.
- 3) During the 1960's, the prices of Poland's exports to the EEC were above their 1959 level. The gain from favorable export prices partially compensated for Poland's weak competitive position measured in constant prices and exchange rates of 1959.

The Effect of the EEC on the USSR's Exports to the EEC

The effect of the EEC on her members' total imports from the USSR can be seen in Table 3.34. The total effect is positive in most years, indicating that the USSR has shared in the overall trade expanding effects of the EEC. The total effect ranges from -5.7% to 15% of the USSR's yearly exports to the EEC in current prices, and is highly volatile during the period 1960-1967.

The three components of the total effect are: the Common Market effect, the competitive effect and the price effect.

The positive and steadily growing Common Market effect of total Soviet exports indicates that the USSR has a favorable commodity composition of her exports to the EEC relative to the extra-area trade expanding effects of the Six.

The competitive effect is predominantly negative during the period of 1960-1967 and indicates that, if measured in constant prices of 1959, the USSR's share in the EEC's market for extra-area imports has been declining relative to the share of the "average" extra-area supplier. The negative competitive effect fluctuates from -1.7% to -13.3% of the yearly Soviet exports to the EEC in current prices. In 1961, 1963 and 1967, however, the competitive effect was positive and ranged from 2.9% to 14.4% of the USSR's exports to the EEC in current prices. In these three years, the USSR's share in the EEC's trade expanding effects was larger than predicted on the basis of the performance of the "average" extra-

Table 3.34: The Four Effects of the EEC on the USSR's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	9,459.36	34,000.03	-24,919.65	73,949.14	14,777.74	29,220.81	41,155.25	111,925.95
(2)	2.3%	7.3%	-5.7%	13%	2.7%	4.9%	63%	14.5%
C.M.E.								
(1)	8,171.34	17,746.35	28,939.60	41,994.19	57,166.21	74,745.96	95,111.03	118,613.52
(2)	2%	3.8%	6.6%	7.4%	10.5%	12.4%	14.5%	15.4%
Comp.E.								
(1)	-7,018.39	13,661.05	-41,647.59	82,316.64	-18,401.46	-44,342.18	-86,932.69	29,490.08
(2)	-1.7%	2.9%	-9.5%	14.4%	-3.4%	-7.3%	-13.3%	3.8%
P.E.								
(1)	8,307.41	2,592.63	-12,211.66	-50,361.69	-23,987.00	-1,182.97	32,976.91	-36,177.75
(2)	2%	.6%	-2.8%	-8.8%	-4.4%	-.2%	5%	-4.7%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.35: USSR: Common Market Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-421.04	-886.74	-1,397.09	-1,958.48	-2,577.28	-3,253.49	-3,993.51	-4,803.68
(2)	-.8%	-1.2%	-2.8%	-3.3%	-10.6%	-6.1%	-7.3%	-8.8%
<u>Raw Mat.</u>								
(1)	3,185.79	6,675.52	10,491.71	14,656.88	19,204.78	24,146.69	29,527.63	35,358.86
(2)	2.2%	4.7%	6.1%	8.5%	10.4%	11%	13%	13.2%
<u>Fuels</u>								
(1)	5,685.62	12,593.27	20,928.48	30,936.48	42,860.85	57,010.59	73,745.87	93,452.60
(2)	4%	7.3%	20.8%	13.3%	18.3%	28.7%	32.2%	31.1%
<u>Chem.</u>								
(1)	-520.73	-1,162.77	-1,946.65	-2,896.65	-4,040.76	-5,410.70	-7,045.66	-8,986.72
(2)	-2.7%	-5.1%	-13%	-14.2%	-20.1%	-23%	-24.6%	-21.2%
<u>Mach.</u>								
(1)	78.40	167.42	268.43	382.80	512.08	658.12	822.88	1,008.45
(2)	3.3%	5.3%	10.5%	17.1%	16.2%	11.1%	16.2%	10.1%
<u>Trans.Eq.</u>								
(1)	9.72	20.70	33.08	46.98	62.60	80.09	99.60	121.37
(2)	1.6%	3.3%	2.7%	4.3%	6%	3.4%	4.6%	4.9%
<u>Manuf.</u>								
(1)	153.58	338.95	561.38	826.18	1,143.94	1,514.66	1,954.22	2,462.64
(2)	.2%	.6%	.5%	.9%	1.4%	1.5%	1.8%	2.6%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

area supplier of the EEC.

The price effect is negative from 1962 to 1965 and also for 1967 and indicates that the prices of the USSR's exports to the EEC fell in this period relative to the export prices of 1959. The range of the negative price effect, as a percentage of Soviet exports to the EEC in current prices, is $-.2\%$ to -8.8% . In 1960, 1961 and 1966, the price effect was positive and ranged from $.6\%$ to 5% of the value of the USSR's exports to the EEC in current prices. Consequently, prices of total Soviet exports to the EEC were volatile during 1960-1967 and they had an overall tendency to fall.

The underlying causes of these results can best be observed by a study of the four effects of the EEC on each commodity group.

In Table 3.35, considering the periods 1951-1959 and 1959-1967, one finds that the EEC has a trade diverting effect only for food and chemicals. Although food is a major component in the USSR's exports to the EEC, its relative importance declined between 1960 (11%) and 1967 (7%). This shift in the commodity composition of the USSR's exports to the EEC was a favorable one, relative to the trade diverting effects of the EEC.

The share of chemicals, a minor part in the Soviet exports to the EEC, increased from 4% in 1960 to 5% of total Soviet exports to the EEC in 1967. This is an unfavorable shift in the commodity composition of Soviet exports to the EEC, relative to the trade diverting effects of the EEC. However, this unfavorable shift is negligible in absolute value.

The bulk of the USSR's exports to the EEC is raw materials, fuels and manufactures, for which the effect of the EEC on her members' imports was found to be trade expanding. Machinery and transport equipment are a small part in the USSR's exports to the EEC but, for both commodity groups, the formation of the EEC had a strong trade expanding effect on her members' extra-area imports.

Consequently, the study of the Common Market effect for each commodity group explains the large positive Common Market effect for total Soviet exports to the EEC.

The USSR is a weak relative competitor of food, chemicals and manufactures, as can be seen in Table 3.36. The problems in the USSR's agricultural sector are well-known and her chemical industry is still lagging compared to her heavy industry, although special investment efforts have been made in the 1960's. Manufactured products in general and consumer durables in particular are still scarce in the USSR. This situation explains the weak relative competitive position of the USSR in food, chemicals and manufactures. The USSR is a strong relative competitor in raw materials, machinery and transport equipment. The competitive strength of the USSR in fuels is difficult to assess. For 1960, 1961, 1963, 1964 and 1965, I found a positive competitive effect for fuels, while in 1962, 1965 and 1966 the competitive effect for this commodity group was negative and large, as a percentage of Soviet exports of fuels to the EEC in current prices (-64.9% in 1962 and -32.0% in 1966). The analysis of the competitive effect for the seven commodity

Table 3.36: USSR: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-18,450.29	1,805.15	-18,213.33	-18,034.41	-60,454.37	-36,765.03	-36,071.55	-36,131.99
(2)	-38.4%	2.6%	-37.7%	-31%	-249.3%	-69.5%	-66%	-66.3%
Raw Mat.								
(1)	12,136.78	555.11	22,657.35	20,627.61	10,812.03	19,534.49	22,370.10	59,995.03
(2)	8.3%	.4%	13.3%	12%	5.8%	8.9%	9.8%	22.3%
Fuels								
(1)	14,517.08	27,286.46	-65,261.96	85,691.13	54,076.83	-18,685.73	-73,322.21	16,381.59
(2)	10.1%	15.8%	-64.9%	36.8%	23.1%	-9.4%	-32%	5.5%
Chem.								
(1)	-5,682.89	-2,744.05	-4,691.17	-3,904.25	-8,857.53	-7,774.80	-6,289.12	3,956.12
(2)	-30%	-12%	-31.4%	-19.1%	-44.1%	-33%	-22%	9.3%
Mach.								
(1)	1,574.74	2,002.82	1,094.66	1,495.21	1,619.72	4,995.70	4,141.92	9,046.61
(2)	67.9%	63.4%	42.9%	66.9%	51.7%	84.8%	81.7%	90.7%
Trans.Eq.								
(1)	428.35	621.97	1,367.87	1,149.09	1,062.47	2,522.31	2,153.74	2,733.91
(2)	72.4%	100.4%	114.9%	106.9%	102.6%	109.5%	110.1%	111.2%
Manuf.								
(1)	-11,542.16	-15,866.41	21,398.99	-4,707.74	-16,660.61	8,169.12	84.43	-26,491.19
(2)	-21.5%	-28.8%	21.4%	-5.6%	-20.9%	8.2%	.1%	-28.2%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

Table 3.37: USSR: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-497.13	-3,165.10	-7,220.02	-1,227.57	3,515.13	4,004.14	1,245.26	-3,197.95
(2)	-1%	-4.5%	-14.9%	-2.1%	14.4%	8.3%	2.2%	-.5%
<u>Raw Mat.</u>								
(1)	14,648.27	15,508.22	13,434.71	8,162.12	22,674.54	38,347.58	33,443.09	26,997.39
(2)	10%	10.8%	7.9%	4.7%	12.2%	17.5%	14.7%	10%
<u>Fuels</u>								
(1)	-16,166.50	-18,584.22	-19,796.03	-62,349.87	-57,256.98	-50,618.26	-215.00	-58,264.94
(2)	-11.2%	-10.7%	-19.7%	-26.8%	-24.5%	-25.5%	-1%	-19.4%
<u>Chem.</u>								
(1)	4,027.03	2,772.22	-5,356.40	-3,256.22	-1,376.27	-2,140.89	-1,967.89	-2,270.59
(2)	21.2%	12.2%	-35.8%	-15.9%	-6.8%	-9.1%	-6.8%	-5.3%
<u>Mach.</u>								
(1)	-163.02	145.68	326.31	-519.46	102.58	-672.94	-823.74	-1,027.22
(2)	-7%	4.6%	12.8%	-23.2%	3.2%	-11.4%	-13.9%	-10.2%
<u>Trans.Eq.</u>								
(1)	-69.12	-215.16	-452.28	-373.67	-352.36	-572.83	-388.40	-695.46
(2)	-11.6%	-41.2%	-38%	-34.7%	-34%	-24.8%	-18%	-28.3%
<u>Manuf.</u>								
(1)	6,526.88	6,170.99	6,852.05	9,202.98	8,706.35	10,070.23	1,683.59	2,281.02
(2)	12.1%	11.2%	6.8%	11%	10.9%	10.2%	1.6%	2.4%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

groups explains why the competitive effect for total Soviet exports to the EEC is predominantly negative between 1960 and 1967.

The price effect is mostly negative for food, fuels, chemicals, machinery and transport equipment, as can be seen in Table 3.37. In years of harvest failure, when exports of food were drastically reduced, for example in 1964, the export prices for agricultural products increased.

The price effect of food in 1964 was 14.4% of the value of the USSR's exports of food to the EEC in current prices. The negative price effect of fuels coincided with a fall in the world prices of fuels between 1960 and 1967.

The price effect is always positive for raw materials and manufactures, indicating that during the period 1960-1967, the prices of the USSR's exports to the EEC for both commodity groups were always above their 1959 level.

The price effects of the individual commodity groups indicate why the price effect of total Soviet exports to the EEC is predominantly negative between 1960 and 1967.

Table 3.38 represents the total effect for each commodity group, and indicates how the USSR's exports have been affected by the formation of the European Common Market.

The EEC had a trade diverting effect on the USSR's exports of food, chemicals and, to some extent, on manufactures; but, the effect on raw materials, fuels, machinery and transport equipment was trade expanding.

Table 3.38: USSR: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-19,368.46	-2,246.69	-26,830.44	-21,220.46	-59,516.52	-35,614.38	-38,819.80	-44,133.52
(2)	-40.3%	-3.2%	-55.5%	-36.5%	-245.4%	-67.4%	-71.1%	-80.9%
Raw Mat.								
(1)	29,970.84	22,738.85	46,583.77	43,446.61	52,691.35	82,028.76	85,340.82	122,351.28
(2)	20.5%	15.9%	27.3%	25.3%	28.4%	37.4%	37.6%	45.5%
Fuels								
(1)	4,036.20	21,295.51	-64,129.25	54,277.74	39,680.70	-12,293.40	208.66	51,569.25
(2)	2.8%	12.3%	-63.8%	23.3%	17%	-6.2%	.1%	17.2%
Chem.								
(1)	-2,176.59	-1,134.60	-11,994.22	-10,057.12	-14,274.56	-15,326.39	-15,302.67	-7,301.19
(2)	-11.5%	-5%	-80.3%	-49.4%	-71%	-65.2%	-53.5%	-17.2%
Mach.								
(1)	1,490.12	2,315.92	1,689.40	1,358.55	2,234.38	4,980.88	4,141.06	9,027.84
(2)	64.3%	73.3%	66.3%	60.8%	71.4%	84.5%	81.6%	90.5%
Trans.Eq.								
(1)	368.95	387.51	948.67	822.40	772.71	2,029.57	1,864.94	2,159.82
(2)	62.4%	62.6%	79.7%	76.5%	74.6%	88.1%	86.7%	87.9%
Manuf.								
(1)	-4,861.70	-9,356.47	28,812.42	5,321.42	-6,810.32	3,415.77	3,722.24	-21,747.53
(2)	-9%	-17%	28.8%	6.3%	-8.5%	3.4%	3.4%	-23.1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

From this analysis one can conclude that:

- 1) The USSR had a very favorable commodity composition relative to the trade expanding effect of the EEC.
- 2) The USSR has a weak competitive position relative to the "average" extra-area supplier of the EEC. The USSR is a weak competitive in the EEC's import market for food, chemicals and manufactures, but a strong relative competitor for raw materials, machinery and transport equipment.
- 3) During the 1960's the prices of the USSR's exports to the EEC were below their 1959 level.
- 4) The USSR shared in the extra-area trade expanding effect of the EEC but it shared less than predicted on the basis of the performance of the "average" extra-area supplier of the EEC.

The Effect of the EEC on Czechoslovakia's Exports to the EEC

From 1960 to 1967, Czechoslovakia's share in the extra-area trade expanding effects of the EEC was quite small. This can be concluded from the small but positive total effect of the EEC on her members' imports from Czechoslovakia, represented in Table 3.39.

The estimated Common Market effect of total exports of Czechoslovakia to the EEC is positive, which indicates that the commodity composition of Czech exports to the EEC is favorable vis-a-vis the overall trade expanding effects of the EEC.

The most interesting part of Table 3.39 is the negative competitive effect of the EEC on her members' total imports from Czechoslovakia from 1961 to 1967. The yearly competitive effect is often of similar absolute magnitude as the Common Market effect, but it is negative, indicating that, if measured in constant prices and exchange rates of 1959, Czechoslovakia did not receive much of her predicted share of the extra-area trade expansion caused by the EEC. It is a clear indication that Czechoslovakia is an extremely weak competitor in the EEC's market for extra-area imports.

The problems of Czechoslovakia's foreign trade sector have been discussed in a paper on the economic problems of Czechoslovakia^y by Ota Šik, and several paragraphs support my conclusion that Czechoslovakia is a weak competitor in the EEC's import market.

"We are forced to sell at world market prices.
Consequently, a great amount of domestic production

Table 3.39: The Four Effects of the EEC on Czechoslovakia's Exports to the EEC, in 1,000 US \$

Years:	1960	1961	1962	1963	1964	1965	1966	1967
T.E.								
(1)	4,027.61	7,387.63	1,166.86	134.37	5,889.43	17,548.86	8,752.92	5,041.90
(2)	3%	5%	1%	0%	3%	9%	4%	2%
C.M.E.								
(1)	1,845.10	3,933.72	6,296.40	8,963.36	11,305.95	15,356.73	19,165.83	23,436.88
(2)	1%	2%	4%	6%	6%	8%	9%	11%
Comp.E.								
(1)	5,907.59	-382.77	-7,980.68	-11,665.11	-7,510.98	-4,241.56	-14,959.14	-24,092.91
(2)	4%	-0%	-5%	-7%	-4%	-2%	-7%	-11%
P.E.								
(1)	-3,725.08	3,836.68	2,851.14	2,836.12	1,427.80	6,433.69	4,546.23	5,697.93
(2)	-3%	2%	2%	1%	0%	3%	2%	2%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by total exports of the extra-area supplier to the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

expenses will not be paid. In this manner we actually export part of our labor completely free. On many export products we do not obtain any profit...

For many exported products we do not even receive what we spent for raw materials, which often is imported...

In this situation, we cannot compete on the world market against our own production expenses. It is then self explanatory that we are compelled to export year after year a larger volume of imports...

Our goods have lower technical parameters (than those sold on the world market) and we cannot supply the needed spare parts... Unfortunately, for the majority of our machinery, we are able to obtain only 50% and in many groups of our products only 40-30% of the price achieved by capitalist countries for similar products...

We were only concerned with our balance of payments. They are governed by ministerial decrees. The main objective was to increase exports to the point where we can obtain enough foreign currency needed to pay for imports." 3

It appears from this paper that there was neither pressure for competition, nor interest in increasing the efficiency of foreign trade. The easiest ways of marketing were chosen. In addition, the foreign trade monopolies can only sell to the West below or at world market prices. In many cases, domestic prices - centrally calculated on the basis of average industrial cost plus mark-up - were substantially above world market prices. The losses were covered by subsidies paid from the budget by the Foreign Trade Ministry. Imports, bought at world market prices, were centrally allocated and did not compete with domestic substitutes. Therefore, complete protection of both production for exports and import substitutes has made it possible for domestic producers to neglect the problem of efficient allocation of resources as well as the improvement of the quality of the products.

Between 1961 and 1967, the price effect of the EEC on her members' total imports from Czechoslovakia was positive but small, as indicated in Table 3.39. This means that the prices of Czech exports to the EEC were somewhat higher between 1961 and 1967 than in 1959.⁴ It is this small positive gain in export prices which makes that Czechoslovakia has shared somewhat in the overall trade expanding effect of the EEC.

The weakness in Czechoslovakia's foreign trade sector can be better understood after an analysis of the four effects of the EEC on her members' imports from Czechoslovakia disaggregated in seven commodity groups.

Table 3.40: The Commodity Composition of Czechoslovakia's exports to the EEC in the 1960's

Commodity group	1960	1967	Change in the i=commodity group commodity j=(1960-1967) distribution	
				$\frac{\sum_i x_{ij}}{\sum_j \sum_i x_{ij}}$
Food	14.0%	18.4%	+4.4	16.7%
Raw materials	24.5%	22.2%	-2.3	25.4%
Fuels	8.4%	4.8%	-3.6	6.7%
Chemicals	8.8%	8.0%	- .8	7.5%
Machinery	9.0%	7.9%	-1.1	8.8%
Transport equipment	4.2%	2.7%	-1.5	4.3%
Manufactures	30.8%	35.7%	+4.9	30.5%

Czechoslovakia has a commodity composition of her exports to

Table 3.41: Czechoslovakia: Common Market Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-141.26	-297.52	-468.75	-657.10	-1,531.38	-1,091.61	-1,339.89	-1,611.72
(2)	-1%	-2%	-2%	-2%	-6%	-3%	-4%	-4%
Raw Mat.								
(1)	678.19	1,421.06	2,233.44	3,120.11	4,088.26	5,140.28	6,285.76	7,527.09
(2)	2%	4%	6%	8%	9%	11%	13%	17%
Fuels								
(1)	407.52	902.64	1,500.10	2,217.10	3,072.10	4,086.30	5,285.82	6,698.33
(2)	4%	7%	12%	16%	27%	50%	64%	68%
Chem.								
(1)	-224.43	-501.15	-838.99	-1,248.43	-1,741.53	-2,331.95	-3,036.61	-3,873.18
(2)	-2%	-4%	-9%	-16%	-14%	-17%	-20%	-24%
Mach.								
(1)	759.78	1,622.39	2,601.16	3,709.44	4,962.14	6,377.31	7,973.80	9,772.00
(2)	7%	13%	17%	29%	34%	42%	51%	61%
Trans.Eq.								
(1)	263.62	561.91	897.79	1,275.29	1,699.04	2,173.66	2,703.20	3,294.02
(2)	5%	9%	24%	21%	23%	20%	31%	59%
Manuf.								
(1)	101.68	224.39	371.65	546.95	757.32	1,002.74	1,293.75	1,630.34
(2)	0%	1%	1%	1%	2%	2%	2%	2%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effects, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

the EEC, represented in Table 3.40, which resembles that of other developed countries. Manufactured products take the largest share, namely 30.5% on the average between 1960 and 1967. The second largest commodity group is raw materials 25.4% and the third largest group is agricultural products 16.7% of Czech exports to the EEC. Fuels, chemicals, machinery and transport equipment have a share of 27.3% of which machinery is the most important with a share of 8.8%. Considering the effects of the EEC on her members' extra-area imports, represented in Table 3.41, I conclude that Czechoslovakia has a very favorable average commodity composition of her exports to the EEC. Indeed, on the average, between 1960-1967, 75.7% of all Czech exports to the EEC belonged to commodity groups for which the EEC had a trade expanding effect on her members' extra-area imports. The shift in the commodity composition between 1960 and 1967, as indicated in Table 3.40, was unfavorable for Czechoslovakia. The fall in the share of raw materials, fuels, machinery and transport equipment in total exports of Czechoslovakia to the EEC, occurred in spite of the trade creating effects of the EEC. The rise in the share of agricultural products was contrary to the trade diverting effects of the EEC. Only the rise in the share of manufactures and the fall in the share of chemicals were consistent with the effects of the EEC on her members' imports of these commodity groups.

Although the shift in the commodity composition of Czech exports to the EEC was unfavorable, the absolute commodity distribution was very favorable relative to the extra-area trade expanding

effects of the EEC, as indicated in Table 3.41.

The unfavorable shift in the commodity composition of Czech exports to the EEC, in spite of the favorable absolute commodity distribution of these exports, is an indication of rigidities in Czechoslovakia's export sector, which partly explain the weak relative competitive position of Czechoslovakia among the other extra-area suppliers of the EEC.

This can clearly be observed in Table 3.42, which represents the competitive effect of the EEC on her members' imports from Czechoslovakia between 1960-1967.

Between 1960 and 1967, the competitive effect for food, fuels, machinery, transport equipment and manufactures was predominantly negative.

This indicates that for these commodity groups, Czechoslovakia is a weak competitor relative to the other extra-area suppliers of the EEC. In other words: Czechoslovakia received a share in the EEC's market for extra-area imports which is considerably smaller than predicted on the basis of the performance of the "average" extra-area supplier of the EEC.

The size of these negative competitive effects, as a percentage of Czechoslovakia's exports of the respective commodity groups to the EEC, is also large and ranges from -16% to -32% for food, from -1% to -137% for fuels, from -8% to -33% for machinery and from -3% to -30% for manufactures. However, Czechoslovakia is a strong relative competitor of raw materials in the EEC's market for

Table 3.42: Czechoslovakia: Competitive Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-3,956.80	-4,411.74	-3,821.47	-4,945.66	-8,424.97	1,882.11	-6,514.51	1,111.67
(2)	-23%	-25%	-16%	-17%	-32%	5%	-21%	3%
Raw Mat.								
(1)	8,966.61	6,690.73	7,580.81	9,688.64	14,774.57	11,950.56	15,970.17	8,234.52
(2)	30%	19%	20%	24%	34%	26%	32%	18%
Fuels								
(1)	619.77	869.08	-67.25	-989.64	-5,492.46	-9,967.05	-11,380.49	-12,337.37
(2)	6%	7%	-1%	-7%	-48%	-121%	-137%	-126%
Chem.								
(1)	468.31	107.60	-362.73	-2,407.54	3,350.64	2,405.08	789.76	3,391.79
(2)	4%	1%	-4%	-31%	27%	17%	5%	-21%
Mach.								
(1)	2,039.53	868.19	2,692.77	-977.70	-1,323.54	-2,172.75	-4,317.59	-5,234.31
(2)	18%	7%	17%	-8%	-9%	-14%	-27%	-33%
Trans.Eq.								
(1)	-1,012.69	-366.26	-3,324.94	-1,027.35	-737.33	1,128.83	-2,115.12	-6,138.09
(2)	-19%	-6%	-89%	-17%	-10%	10%	-24%	-110%
Manuf.								
(1)	-1,217.14	-4,140.37	-10,677.87	-10,985.86	-9,657.89	-9,468.34	-7,391.36	-6,337.54
(2)	-3%	-11%	-30%	-29%	-20%	-16%	-12%	-9%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier to the EEC, in current prices.

All percentage figures larger than one percent have been rounded off.

Source: Appendix A.

Table 3.43: Czechoslovakia: Price Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
Food								
(1)	-1,204.56	-1,309.34	2,331.01	8,067.03	7,305.24	3,973.85	7,733.80	4,690.47
(2)	-7%	-7%	10%	28%	28%	12%	25%	13%
Raw Mat.								
(1)	-4,122.59	2,340.26	1,023.89	-423.28	-3,188.78	-503.37	-3,148.19	-1,901.15
(2)	-14%	6%	3%	-1%	-7%	-1%	-6%	-4%
Fuels								
(1)	-684.37	-115.10	-720.29	-378.57	-14.39	-1,016.99	-2,017.40	-2,374.92
(2)	-7%	-1%	-6%	-3%	-0%	-12%	-24%	-24%
Chem.								
(1)	1,560.01	1,324.38	-971.34	-1,594.92	-3,784.31	-2,917.04	-1,818.94	2,189.76
(2)	14%	12%	-10%	-20%	-30%	-21%	-12%	13%
Mach.								
(1)	311.85	2,010.60	2,076.13	1,603.06	2,369.80	2,253.30	3,130.98	2,302.89
(2)	3%	16%	13%	13%	16%	15%	20%	14%
Trans.Eq.								
(1)	-8.62	-405.44	-382.72	-1,141.46	-827.43	354.44	467.21	342.42
(2)	-0%	-7%	-10%	-19%	-11%	3%	5%	6%
Manuf.								
(1)	423.20	-8.68	-505.54	-3,295.74	-432.33	4,289.50	197.77	448.46
(2)	1%	-0%	-1%	-9%	-1%	7%	0%	1%

(1) is the value of the effects in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

extra-area imports. Czechoslovakia's relative competitive strength in chemicals is uncertain. This can be seen from the competitive effect for chemicals which fluctuates between 27% and -31% of Czechoslovakia's exports of chemicals to the EEC.

Table 3.43 shows the price effect for each commodity group between 1960 and 1967. During 1960-1967, the prices of Czechoslovakia's exports of food and machinery to the EEC were generally above their level of 1959. The prices of raw materials, fuels and chemicals were generally below their 1959 level. The export prices of transport equipment and manufactures were below their 1959 level from 1960 to 1964 but remained above their 1959 level from 1965 to 1967. From 1961 to 1967, the prices of Czechoslovakia's total exports to the EEC were always above their 1959 level. This small gain in prices partially compensates for the overall negative competitive effect of the EEC in Czechoslovakia's total exports to the Six.

The total effect of the EEC on each of the seven commodity groups exported by Czechoslovakia to the EEC is presented in Table 3.44. Czechoslovakia's exports of chemicals to the EEC are more adversely affected by the trade diverting effects of the EEC than predicted on the basis of the performance of all extra-area suppliers of chemicals to the EEC. In spite of the small trade expanding effects of the EEC in manufactures, the total effect on Czechoslovakia's exports of manufactures to the EEC is negative between 1960 and 1967. This stresses the problems in Czechoslovakia's foreign

Table 3.44: Czechoslovakia: Total Effect for the Seven Commodity Groups

Years:	1960	1961	1962	1963	1964	1965	1966	1967
<u>Food</u>								
(1)	-5,302.62	-6,018.60	-1,959.21	2,464.27	-1,984.45	4,764.35	-120.60	4,190.42
(2)	-31%	-34%	-8%	8%	-8%	14%	-0%	11%
<u>Raw Mat.</u>								
(1)	5,522.21	10,452.05	10,838.14	12,385.47	15,674.05	16,587.47	19,107.74	13,860.46
(2)	18%	29%	29%	31%	36%	36%	39%	31%
<u>Fuels</u>								
(1)	342.92	1,656.62	712.56	848.89	-2,434.75	-6,897.74	-8,111.07	-8,013.96
(2)	3%	13%	6%	6%	-21%	-84%	-98%	-82%
<u>Chem.</u>								
(1)	1,803.89	930.83	-2,173.06	-5,250.89	-2,175.20	-2,843.91	-4,065.79	-5,075.21
(2)	17%	8%	-23%	-67%	-17%	-20%	-27%	-31%
<u>Mach.</u>								
(1)	3,111.16	4,501.18	7,370.06	4,314.80	6,008.40	6,457.86	6,787.19	6,840.58
(2)	28%	36%	47%	34%	41%	42%	43%	43%
<u>Trans.Eq.</u>								
(1)	-757.69	-209.79	-2,809.87	-893.52	134.28	3,656.93	1,055.29	-2,501.65
(2)	-14%	-3%	-75%	-15%	2%	33%	12%	-45%
<u>Manuf.</u>								
(1)	-692.26	-3,924.66	-10,811.76	-13,734.65	-9,332.90	-4,176.10	-5,899.84	-4,258.74
(2)	-2%	-10%	-30%	-36%	-20%	-7%	-9%	-6%

(1) is the value of the effect in 1,000 US \$

(2) is the value of the effect, divided by the exports of the respective commodity group of the extra-area supplier of the EEC, in current prices.

All percentage figures, larger than one percent, have been rounded off.

Source: Appendix A.

sector, especially in the production of manufactures.

The trade expanding effects of the EEC in transport equipment were substantial, but Czechoslovakia could not take advantage of this situation because of its extremely weak competitive position in this sector relative to the other extra-area suppliers of the EEC.

The total effect is predominantly negative for food and chemicals. This was to be expected because of the trade diverting effects of the EEC on her members' imports of food and chemicals (Table 3.44).

Czechoslovakia received more than her predicted share of the trade expanding effect of the EEC in raw materials, and nearly her predicted share in machinery.

On the basis of this analysis one can conclude that:

- 1) Czechoslovakia has a very favorable commodity composition of her exports to the EEC vis-a-vis the extra-area trade expanding effects of the EEC.
- 2) Czechoslovakia is a very weak competitor in the EEC's market for extra-area imports. Her relative competitive position is especially weak in food, fuels, machinery, transport equipment and manufactures but strong in raw materials.
- 3) Czechoslovakia shared favorably in the overall trade expanding effects of the EEC although her share was quite small.

The Relative Effect of the EEC on the Exports of the Communist
Countries of Eastern Europe

In the previous part of this chapter, I explained the effect of the EEC on the exports to the EEC of each communist country of Eastern Europe separately.

In this part, I will compare the way in which the exports to the EEC of each communist country of Eastern Europe have been affected by the formation of the EEC, relative to the exports of its partners in COMECON. Table 3.45 represents a synthesis of the previous analysis, based on the relative share model. The percentage effects have been derived as the sum of each effect from 1960 to 1967, divided by total exports of each communist country for the same period. For each effect the countries have been ranked from most favorably affected to least favorably or unfavorably affected.

The average Common Market effect indicates that the USSR and Albania have the most favorable commodity composition of their exports to the EEC, relative to the overall extra-area trade creating effects of the EEC. Bulgaria has the most unfavorable commodity composition of her exports to the EEC and therefore suffered a negative Common Market effect.

The average competitive effect indicates the competitive strength of each communist country in the sample, relative to all other extra-area suppliers of the EEC. Although Bulgaria has a negative Common Market effect, her competitive effect is positive

Table 3.45: The Effect of the EEC on her Members' Total Imports from the Communist Countries of Eastern Europe

	<u>C.M.E.</u>	<u>Comp.E.</u>	<u>P.E.</u>	<u>T.E.</u>
USSR	9.9	43.7	14.5	50.4
Albania	9.2	38.6	11.5	49.6
Romania	7.1	28.6	9.8	39.0
Czechoslovakia	7.0	21.4	7.2	32.4
Poland	4.2	16.0	1.8	19.8
GDR	3.6	8.9	-.4	16.0
Yugoslavia	2.4	-1.6	-1.7	6.9
Hungary	1.1	-3.6	-3.7	6.4
Bulgaria	-.5	-5.0	-5.4	3.8

Source: Appendix A.

The percentage figures are derived as $\frac{\sum_{i=60}^{67} E_i}{\sum_{i=60}^{67} M_i}$ where E represents each effect (C.M.E., Comp.E., P.E. and T.E.) and M are the total imports of the EEC from the respective communist country of Eastern Europe.

and second largest among the other communist countries of Eastern Europe. The important factor is that Bulgaria did not have to buy its competitive effect at the cost of a fall in the prices of her exports to the EEC. Among the communist countries of Eastern Europe, Bulgaria experienced the second highest increase of her export prices to the EEC. Romania has a favorable commodity composition of her exports to the EEC relative to the trade creating effects of the EEC. In addition, she is the strongest relative competitor in the EEC's market for extra-area imports among all communist countries of Eastern Europe. However, in the 1960's, Romania experienced a small fall in the prices of her exports, relative to their 1959 level. In the last decade, Romania has tried to be politically and economically independent from the USSR and the other members of COMECON. Romania's excellent performance in the EEC's market for extra-area imports can be explained in the light of this policy of independence or neutrality.

Among the communist countries of Eastern Europe, Albania suffered most from a fall in her export prices. However, Albania is a strong competitor in the EEC's market for extra-area imports and shared very favorably in the overall trade creating effects of the EEC.

The three countries which are less favorably affected by the EEC are Poland, the USSR and Czechoslovakia. Czechoslovakia has a favorable export commodity mix relative to the overall trade expanding effects of the EEC. Unfortunately, her competitive strength in

the EEC's market for extra-area imports is the weakest of all communist countries of Eastern Europe. Czechoslovakia's export prices increased slightly since 1959 which partly compensated for her negative competitive effect. The total exports of the USSR to the EEC are roughly 50% of the exports of the other communist countries of Eastern Europe to the EEC. She has the most favorable commodity composition of her exports to the EEC among her COMECON partners. However, her competitive effect is negative, indicating that she is a weak competitor in the EEC's market for extra-area imports. Her price effect is also negative, indicating that, during the 1960's, the prices of the USSR's exports to the EEC declined. Poland is also a relatively weak competitor, but she gained substantially from rising export prices during the 1960's.

As a group, the communist countries of Eastern Europe shared favorably in the trade expanding effects of the EEC.⁵

In the following Chapter, I will discuss some empirical results of the linear regression model, developed in Chapter II.

FOOTNOTES

¹The four periods prior to and after the formation of the EEC are:

Pre-Integration Period	Post-Integration Period
1951-1959	1959-1967
1952-1959	1959-1966
1953-1959	1959-1965
1954-1959	1959-1964

²E. Thorbecke, "Problems of Regional Integration, European Integration and the Pattern of World Trade", American Economic Review, Papers and Proceedings, LIII (May, 1963), p. 173.

³Ota Šik, "On the Economic Problems of Czechoslovakia", U.S. Senate, Committee on the Judiciary, Hearings, Subcommittee on Anti-trust and Monopoly, 19th Congress, 2nd Session, Part 7-A, 1969, p. 4515.

⁴This conclusion is fully consistent with Professor Šik's statement. He compares world prices with Czech prices at one specific time, while I compare only Czech prices over a period of time.

⁵The same conclusion has been reached by:
Bela Balassa, "Trade Creation and Trade Diversion in the European Common Market", The Economic Journal, LXXVII (March, 1967), pp. 14, 20.

CHAPTER IV

THE EMPIRICAL RESULTS OF THE LINEAR REGRESSION MODEL, MEASURING THE EXTRA-AREA TRADE EXPANDING OR DIVERTING EFFECTS OF THE EEC ON HER MEMBERS' IMPORTS FROM SOME COMMUNIST COUNTRIES OF EASTERN EUROPE

The linear regression model, expressing changes in the EEC's demand for extra-area imports, caused by the formation of the EEC, has been explained in Chapter II.

In Chapter III, I presented the empirical results of the relative share model. In Table 3.45 it was shown that among all communist countries of Eastern Europe, Poland, the USSR and Czechoslovakia were least favorably affected by the formation of the European Common Market. It was difficult, however, to draw a dividing line between the countries which gained by the formation of the EEC and the others whose exports to the EEC suffered from trade diversion. The relative share model was not sensitive enough to provide a clear dividing line, although it suggested that Poland was somewhat more favorably affected by the EEC than both the USSR and Czechoslovakia. I decided, therefore, to apply the linear regression model only to the EEC's imports from Poland, the USSR and Czechoslovakia as a means to find the dividing line between the

countries of Eastern Europe whose exports have increased because of the trade creating effects of the EEC and those whose exports have suffered from trade diversion.¹

The Effect of the EEC on her Members' Imports from Poland

As explained in Chapter II, the linear regression model includes two tests: the first one indicates whether the EEC has a significant effect on the exports of an extra-area supplier and the second test indicates whether the effect is either trade diverting or trade creating.

The single equation linear regression model, 4.1, represents the EEC's demand for total imports from Poland for the period 1951-1967.²

$$4.1 \quad M_{51-67} = 92.8779 + .6555 Y - .6403 \frac{P_M}{P_D}$$

St. error (52.5000) (.1702) (.3135)

Sign. level .099 .002 .060

$$R^2 = .9024$$

$$R = .9500$$

$$\rho_{Y, \frac{P_M}{P_D}} = -.8649$$

SEE = standard error of estimate = 16.1649

ESS = error sum of squares = 3658.2572 (14 degrees of freedom)

F = 64.7395 ; significant at a sign. level of $< .0005$

In model 4.1, both income and relative prices are highly significant

in explaining the EEC's demand for imports from Poland, which indicates that in this portion of East-West trade economic variables are extremely important.

The single equation linear regression model 4.2 also expresses the EEC's demand for imports from Poland for the period 1951-1967. However, this equation includes a dummy variable to separate the pre-integration period from the post-integration period. For the period prior to the formation of the EEC, namely 1951-1958, the value of the dummy variable X is equal to zero, but for the years 1959-1967, after the EEC became actually operative, the value of X is equal to one.

$$4.2 \quad \begin{array}{l} M_{51-58, X=0} \\ \quad \quad \quad 59-67, X=1 \end{array} = \begin{array}{l} -159.2436 \\ (174.9143) \\ (.382) \end{array} + \begin{array}{l} 403.0618 X \\ (210.8402) \\ (.082) \end{array} + \begin{array}{l} 1.9411 Y \\ (1.0668) \\ (.096) \end{array}$$

$$\begin{array}{l} - 1.5833 X Y + .5489 \frac{P_M}{P_D} - 2.3212 X \frac{P_M}{P_D} \\ (1.0885) \quad (.7696) \quad (1.2680) \\ (.174) \quad (.491) \quad (.094) \end{array}$$

$$R^2 = .9336$$

$$R = .9662$$

$$C Y, \frac{P_M}{P_D} = - .8649$$

$$SEE = 15.0472$$

$$ESS = 2490.6046$$

$$F = 30.9171 ; \text{significant at a significance level } < .0005$$

The problem of multicollinearity is increased by including a dummy variable in the model. This increased the variances and covariances of the estimates of the parameters. Although in equation 4.2, some coefficients are no longer significant at a 5% level of significance, it is still desirable to accept the results. The following F-test indicates whether the formation of the EEC had a significant effect on her members' imports from Poland.

Test I:

$$F_{3,11} = \frac{\frac{3658.26 - 2490.61}{14 - 11}}{\frac{2490.61}{11}} = \frac{389.21}{226.41} = 1.71$$

The value of $F_{3,11}$ is 1.71, and is not significant at the 5% level of significance. The F-test therefore suggests that the formation of the EEC had little effect on the exports of Poland to the EEC.

The second test shows whether the effect of the EEC on her members' imports from Poland was either trade diverting or trade expanding.

Test II:

Table 4.1: The Effect of the EEC on her Members' Imports from Poland

Year	M_i^1	M_i^2	$M_i^1 - M_i^2$
1959	89.81	102.37	-12.56
1960	105.40	122.17	-16.77

1961	132.47	96.78	35.69
1962	146.89	131.55	15.34
1963	173.74	129.69	44.07
1964	200.34	142.71	57.64
1965	228.14	141.57	86.57
1966	250.25	152.34	97.91
1967	265.09	169.45	95.64
$\sum_{i=59}^{67} (M_i^1 - M_i^2)$			= 403.53

The figures are expressed in percentages of the actual imports of the EEC from Poland in 1959, measured in prices and exchange rates of 1959.

Source: The percentage import figures in constant prices are derived from the tables in Appendix A. The percentage income and domestic price indexes (1959 = 100) for the EEC were derived from: National Accounts of the O.E.C.D. 1951-1967, O.E.C.D., Statistical Bulletins, Paris.

The difference $\sum_{i=59}^{67} (M_i^1 - M_i^2)$, if positive, is an indication of extra-area trade expansion, and, if negative, of extra-area trade diversion.³ Because of the multicollinearity in the model, I propose only to look at the sign of $\sum_{i=59}^{67} (M_i^1 - M_i^2)$ and not at its absolute magnitude. This sign is clearly positive, as can be observed in Table 4.1.

The linear regression model yields the same conclusion as the relative share model, namely that Poland's exports to the EEC were marginally affected by the EEC and that the effect was positive, indicating that Poland shared in the trade expanding effects of the

EEC.

The Effect of the EEC on her Members' Imports from the USSR

The relative share model indicates that the exports of Poland and the USSR are affected in a similar way by the formation of the EEC. This is clear from the percentage total effect, represented in Table 3.45. However, this conclusion is based on imports of the EEC from the USSR and Poland in current prices. In the same table the percentage competitive effect indicates that Poland is the stronger competitor in the EEC's market for extra-area imports relative to the USSR, although both countries are weak competitors relative to the "average" extra-area supplier of the EEC. The competitive effect is measured in constant prices and exchange rates of 1959.

The linear regression model is also based on import figures expressed in constant prices and exchange rates of 1959. One can, therefore, expect that the linear regression model will indicate that Poland has been more favorably affected by the EEC than the USSR. This statement will now be tested. The demand for imports of the EEC from the USSR is represented by the linear regression model 4.3.

$$4.3 \quad M_{51-67} = 39.3521 + .9781 Y - .4752 \frac{P_M}{P_D}$$

$$(38.6362) \quad (.1492) \quad (.2017)$$

$$(.326) \quad (.0005) \quad (.034)$$

$$R^2 = .9674$$

$$R = .9836$$

$$ESS = 2052.9680 \quad (14 \text{ degrees of freedom})$$

$$SEE = 12.1095$$

$$F = 207.7767 \quad (\text{significant at a level of significance } .0005)$$

$$\rho_{Y, \frac{P_M}{P_D}} = -.9034$$

Income and relative prices are again very significant variables explaining the demand for imports of the EEC from the USSR. This result demonstrates once more that this part of East-West trade is mainly determined by economic variables. Including dummy variables to make a distinction between the pre- and post-integration period, the demand of the EEC's members for imports from the USSR can be written as follows:

$$\begin{aligned}
 4.4 \quad M_{51-58} \quad (X=0) &= -77.2244 + 324.2820 X + 1.4654 Y \\
 M_{59-67} \quad (X=1) &\quad (97.2846) \quad (149.5792) \quad (.6382) \\
 &\quad (.444) \quad (.053) \quad (.042) \\
 &- 1.0207 XY + .0748 \frac{P_M}{P_D} - 2.0236 X \frac{P_M}{P_D} \\
 &\quad (.6906) \quad (.3783) \quad (.9704) \\
 &\quad (.167) \quad (.847) \quad (.061)
 \end{aligned}$$

$$R^2 = .9826$$

$$R = .9912$$

$$ESS = 1097.56 \quad (11 \text{ degrees of freedom})$$

$$SEE = 9.9889$$

$$F = 124.0597 \quad (\text{significant at a significance level } < .0005)$$

$$\rho_{Y, \frac{P_M}{P_D}} = -.9034$$

Equation 4.4 indicates that relative prices were not a significant variable explaining the imports of the EEC from the USSR in the period prior to the formation of the EEC, but that they became a very important variable after the integration of the Six.⁴

The F-test shows whether the USSR was significantly affected by the formation of the EEC.

$$F_{3,11} = \frac{\frac{2052.9681 - 1097.5623}{14 - 11}}{\frac{1097.5623}{11}} = \frac{318.47}{11} = 3.19$$

The value of $F_{3,11}$ is 3.19, which is not significant at a 5% level, but which is significant at a 10% level of significance. I therefore conclude that the formation of the EEC had a significant effect on the exports of the USSR to the EEC.

The second test indicates whether the effect of the EEC on her members' imports from the USSR was trade diverting or expanding.

Table 4.2: The Effect of the EEC on her Members' Imports from the

Year	USSR		
	M_i^1	M_i^2	$M_i^1 - M_i^2$
1959	96.66	77.78	18.88
1960	102.49	165.40	-62.91
1961	114.99	175.74	-60.75
1962	134.18	188.17	-53.99
1963	157.47	204.22	-46.75
1964	163.70	226.39	-62.69

1965	169.15	241.78	-72.63
1966	170.65	261.68	-91.03
1967	193.03	268.71	-75.68

$$\sum_{i=59}^{67} (M_i^1 - M_i^2) = \underline{\underline{-507.55}}$$

Source: See table 4.1

The sign of $\sum_{i=59}^{67} (M_i^1 - M_i^2)$ is negative and indicates that the USSR's exports suffered from trade diversion caused by the formation of the EEC.⁵ This result is consistent with the conclusion derived on the basis of the relative share model. Indeed, the relative share model indicates that the USSR's exports to the EEC are less favorably affected by the formation of the EEC than the exports of Poland. However, the relative share model suggested that the total effect of the EEC on her members' imports from the USSR is positive, indicating that the USSR shared marginally in the extra-area trade expanding effects of the EEC. This result was based on imports measured in current prices and exchange rates, while the import figures in the linear regression model are based on constant prices and exchange rates of 1959.⁶ This result of the second test also indicates where the dividing line is between the countries which have gained from the formation of the EEC and the other communist countries of Eastern Europe, namely the USSR and Czechoslovakia, whose exports were negatively affected by the formation of the EEC. It is now necessary to show that the linear regression model will consistently indicate that both the USSR and Czechoslovakia suffered from trade diversion.

The Effect of the EEC on her Members' Imports from Czechoslovakia

The EEC's demand for imports from Czechoslovakia for the period 1951-1967 is expressed by the following single equation linear regression model (4.5)

$$4.5 \quad M_{51-67} = 44.2273 + .8275 Y - .3314 \frac{P_M}{P_D}$$

$$(40.1331) \quad (.1242) \quad (.2530)$$

$$(.289) \quad (.0005) \quad (.211)$$

$$R^2 = .9681$$

$$R = .9839$$

$$ESS = 1133.2487 \quad (14 \text{ degrees of freedom})$$

$$SEE = 8.9970$$

$$F = 212.3228 \quad (\text{significant at a level } .005)$$

$$\rho_{Y, \frac{P_M}{P_D}} = -.9238$$

The relative price variable explaining the variations in the EEC's demand for imports from Czechoslovakia is less significant than the relative price variables explaining the EEC's demand for imports from Poland and the USSR.⁷ The EEC's demand for imports from Czechoslovakia, before and after the economic integration of the Six, can be represented by equation 4.6

$$4.6 \quad M_{51-58, X=0} = -165.5627 + 177.8494 X + 2.0206 Y$$

$$59-67, X=1$$

$$(50.7513) \quad (171.8398) \quad (.2737)$$

$$(.008) \quad (.323) \quad (.0005)$$

$$\begin{array}{rcc}
 - 1.2149 XY & + & .6517 \frac{P_M}{P_D} & - & .5760 \times \frac{P_M}{P_D} \\
 (.42009) & & (.2635) & & (1.3606) \\
 (.015) & & (.031) & & (.680)
 \end{array}$$

$$R^2 = .9898$$

$$R = .9949$$

$$ESS = 362.7241$$

$$SEE = 5.7424$$

$$F = 213.1562 \text{ (significant at a level } .0005)$$

$$\rho_{Y, \frac{P_M}{P_D}} = -.9238$$

The F-test, indicating whether the EEC has a significant effect on her members' demand for imports from Czechoslovakia is presented as the first test:

Test I:

$$F_{3,11} = \frac{\frac{1133.2487 - 362.7240}{14 - 11}}{\frac{362.7240}{11}} = \frac{256.84}{11} = 7.79$$

The value of $F_{3,11}$ is 7.79. It is highly significant at the 5% level.⁸ This test demonstrates that the EEC has a considerable effect on her members' imports from Czechoslovakia and even to a much larger extent than on her members' imports from either Poland or the USSR.

Test II:

The second test indicates whether the effect of the EEC on

her members' imports from Czechoslovakia is trade diverting or expanding.

Table 4.3: The Effect of the EEC on her Members' Imports from Czechoslovakia

Year	M_i^1	M_i^2	$M_i^1 - M_i^2$
1959	100.44	101.54	-1.10
1960	108.54	119.35	-10.81
1961	116.30	140.09	-23.79
1962	125.83	161.72	-35.89
1963	135.79	184.54	-48.75
1964	147.51	211.94	-64.43
1965	158.22	238.35	-80.13
1966	167.98	261.38	-93.40
1967	175.76	280.08	-104.32

$$\sum_{i=59}^{67} (M_i^1 - M_i^2) = -462.62$$

Source: See Table 4.1

The effect of the EEC on her members' imports from Czechoslovakia is clearly trade diverting. If measured by the linear regression model, the USSR's exports to the EEC suffered even more from the trade diverting effects of the EEC than the exports of Czechoslovakia.⁹

Before I present the summary of the results of this thesis

in Chapter V, I will demonstrate that in the 1960's the trade between the EEC countries and the communist countries of Eastern Europe was more responsive to economic factors than in the 1950's, when this portion of East-West trade was more determined by political factors, such as the change in temperature of the Cold War. The changes in price elasticities of the EEC's demand for imports for the two periods 1951-1958 and 1959-1967 will be considered an indication of the changes in responsiveness of East-West trade to economic factors. The results shown in Table 4.4 are based on experiments with the linear regression model for a sample of communist countries of Eastern Europe. It can be observed from Table 4.4 that only the price elasticity of the EEC's demand for imports from Czechoslovakia fell in the 1960's, relative to the 1950's. The price elasticity of the EEC's demand for imports from all other communist countries of Eastern Europe is much larger in the 1960's than in the 1950's. Considering that over a twenty-year period the commodity distribution of the exports of the communist countries of Eastern Europe to the EEC is very stable, the changes in price elasticities are really an indication that, in the 1960's this part of East-West trade is much more determined by economic factors than in the previous decade.

Table 4.4: The Absolute Values of the Price Elasticities of Imports
of the EEC Countries from the Communist Countries of
Eastern Europe, prior to and after the Formation of the EEC

Countries	pre-integration period 1951-1958	post-integration period 1959-1967
Bulgaria	.06	.46
Czechoslovakia	.65	.08
Hungary	.12	3.71
GDR	.20	5.31
Poland	.54	1.77
Romania	.20	4.08
USSR	.07	1.95
Yugoslavia	.39	4.20

Source: Import figures are derived from the results in Appendix
A.

This idea was presented previously in the introduction of this thesis. It is therefore that I was tempted to present empirical support for this idea, which could be easily derived from my experiments with the linear regression model.

In Chapter V, I will give a synthesis of the results derived from the analysis in this thesis.

FOOTNOTES

¹The results of the linear regression model for the EEC's imports from the GDR and Romania are not presented in this thesis. However, experiments indicated the existence of trade expansion in the GDR's and Romania's exports to the EEC, which coincides with the results of the relative share model.

²As indicated in Chapter II, imports, income and relative prices are measured as indexes, with 1959 = 100. Imports and income are measured in constant prices and exchange rates of 1959. This makes the results between countries directly comparable, by avoiding problems of differences in the size of the countries in the sample.

³If the linear regression model were not plagued with multicollinearity, one could give a specific meaning to

$$\sum_{i=59}^{67} (M_i^1 - M_i^2) = 403.53. \text{ This would mean that the gains from}$$

trade expansion accruing to Poland from 1959 to 1967 were 4 times her level of exports to the EEC in 1959. In dollar terms this would be 684,988,000 US dollars in 1959 prices and exchange rates, spread over a nine year period. In the absence of multicollinearity, therefore, I would have suggested that on the average between 1959 and 1967, Poland gained roughly 60 Million US dollars per year from the formation of the EEC.

⁴The introduction of a dummy variable has once more increased the problem of multicollinearity. This may be an explanation of the positive sign of the relative price variable in equation 4.4, for the period prior to the integration, which is contrary to economic theory.

⁵If no multicollinearity were present in this model, I would have said that the USSR lost, on the average, 206 Million US dollars a year of her export earnings in 1959 prices and exchange rates, as a result of the trade diverting effects of the EEC. However, this figure is unreliable because of the multicollinearity, and seems to be excessively large.

⁶Another important reason for the differences in the conclusions derived from both models is that the relative share model compares the pre-1959 performance of all extra-area suppliers of the EEC with the post-1959 performance of a specific extra-area supplier, while the linear regression model compares the pre-1959 performance of the specific extra-area supplier with the post-1959 performance of

the same supplier of the EEC.

⁷This may be because the multicollinearity between the explanatory variables is higher in the model explaining the imports of the EEC from Czechoslovakia than in the model explaining the EEC's imports from Poland and the USSR.

⁸In fact, this value of F is even significant at the 1% level.

⁹On the basis of the relative share model, I expected that the exports of Czechoslovakia would have been less favorably affected by the EEC than the exports of the USSR. The two models yield somewhat different results for Czechoslovakia. However, this can be expected, because the models are based on different assumptions.

CHAPTER V

SUMMARY OF THE RESULTS AND SUGGESTIONS FOR FURTHER RESEARCH

In the introduction to this thesis, I quoted three statements by experts on East-West trade, who have been writing or speaking on the effects of the EEC on the exports of the communist countries of Eastern Europe to the members of the European Common Market.

E. M. Bolasco concluded that:

"In the economic field the Soviet Union has nothing to fear from the Common Market, since her exports to the latter are chiefly raw materials, and duties on these commodities will be negligible in the common external tariff which is being built around the Common Market. On the contrary, the People's Democracies, which export mainly agricultural and industrial products, fear an adverse effect on their trade with the EEC countries."¹

Bolasco only considered three commodity groups and the height of the common external tariff of the EEC, which was mentioned as the only cause for changes in trade flows between the communist countries of Eastern Europe and the EEC countries. If one studies ex-post both income and substitution effects caused by the elimination of internal tariffs, as well as the unification of external tariffs, then one comes to the conclusion that the EEC has a trade diverting effect for agricultural products and chemicals, but a trade expanding

effect for most other commodity groups, especially all industrial products (Table 3.1). Insofar as the People's Democracies (communist countries of Eastern Europe) export industrial products to the EEC, it may be expected that the EEC had an extra-area trade expanding effect on the exports of these countries. However, Bolasco was correct when he stated that the USSR has a commodity composition of her exports to the EEC which, among all communist countries of Eastern Europe, was the most favorable, relative to the overall extra-area trade expanding effects of the EEC. This, I demonstrated in the total percentage Common Market effect in Chapter III, Table 3.45. But, if the commodity composition of their exports to the EEC is the only criterion for deciding whether the EEC has a trade expanding or diverting effect on their exports to the EEC, then I can conclude from my study that all communist countries of Eastern Europe, with the exception of Bulgaria, gained from the formation of the EEC. This last observation is contrary to E. M. Bolasco's statement.

However, it is not sufficient to study the effect of the EEC on the communist countries of Eastern Europe in constant prices and exchange rates of 1959 as I did in the Common Market effect. The EEC will also have affected the relative competitive position of her extra-area suppliers, as well as the prices which these suppliers could charge for their exports to the EEC. Therefore, a detailed break-down by seven commodity groups and a consideration of the three effects of the EEC, namely the Common Market effect, the competitive effect and the price effect, yields conclusions substantially

different from the statements of Bolasco.

S. Zdiechowski stated that, in the economic sphere, the USSR would not be seriously affected by the EEC, but that the agricultural policy of the Common Market was bound to hurt the East European countries, especially Poland and Czechoslovakia.² From the empirical results of the relative share model, presented in detail in Appendix A, I derived figures for the average percentage Common Market effect for food. This effect was negative as expected on the basis of the EEC's agricultural policy and reached -4.7% of the exports of food of the USSR, -2.4% for Poland and -3.2% for Czechoslovakia. It is clear from my results, that the USSR suffered more from trade diversion in her exports of food to the EEC than either Poland or Czechoslovakia. Again, this was contrary to the statements of Zdiechowski. Zdiechowski gives further the impression that, in an economic sense at least, the USSR has nothing to fear from the EEC. If the USSR's total exports to the EEC are studied on the basis of my linear regression model, it is clear that the USSR suffered from trade diversion, which was predicted by A. Nove.³

Contrary to Zdiechowski's statement, my linear regression model indicates that Poland gained from the trade expanding effects of the EEC. However, Zdiechowski was correct in pointing out that Czechoslovakia's exports would be adversely affected by the EEC.

The problem with the statements of most authorities on East-West trade, concerning the effects of the EEC on the communist countries of Eastern Europe, is that no formal models were presented

on the basis of which these statements were made. It was therefore necessary to develop quantitative models to measure the effect of the EEC on the exports of the communist countries of Eastern Europe to the EEC. This thesis was an attempt to construct such models and to verify the few statements made by the authorities on East-West trade.

Further research in this area would be useful.

First, the two models presented in Chapter II can be improved and secondly, a study can be done on the changes in both the income and commodity terms of trade between each communist country of Eastern Europe and the EEC.⁴

The relative share model is based on the assumption that extra-area trade expansion or diversion can be measured by a change in the average income elasticity of the EEC's extra-area import demand for a period after the economic integration, relative to the period prior to the formation of the Common Market. If the yearly income elasticity of the extra-area demand for imports of the EEC was steadily growing or falling between 1951 and 1967, the method of comparing average income elasticities for the periods 1951-1959 and 1959-1967 would automatically lead to the conclusion that the EEC had a trade expanding or diverting effect even if in reality the EEC may have had no effect at all on her members' extra-area imports, or perhaps an effect contrary to the one observed by this method.

It may be possible to adjust the differences in average income elasticities of extra-area import demand for periods prior to and

after the formation of the EEC by correcting the average income elasticities for a trend value observed in the yearly income elasticities prior to integration. An alternative, but less desirable way to improve the relative share model, is to design a lower or upper bound estimate for the Common Market effect by taking into consideration the changing trend in world trade prior to and after 1959. Both suggested modifications may yield a purer estimate of the effect of the EEC on her extra-area suppliers.

The linear regression model could be expanded by including average weighted tariffs for periods prior to and after the formation of the EEC. The expanded linear regression model could then be formulated as follows:

$$1) \quad M_{51-67} = a + bX + cXY + dY + eX \frac{P_M}{P_D} + f \frac{P_M}{P_D} + gXT_{\text{ext}} \\ + hT_{\text{ext}} + iX \frac{T_{\text{int}}}{T_{\text{ext}}}$$

where $d > 0$ and where the sign of a, b, c, e and g
 $f < 0$ cannot be determined a priori.
 $b < 0$
 $i > 0$

The EEC's demand for extra-area imports in the pre-integration period could be represented as:

$$2) \quad M_{51-58} = a + dY + f \frac{P_M}{P_D} + hT_{\text{ext}}$$

for $X = 0$ in the pre-integration period.

The EEC's demand for extra-area imports in the post-integration

period could be represented as:

$$3) \quad M_{58-67} = (a+b) + (c+d)Y + (e+f) \frac{P_M}{P_D} + (g+h)T_{ext} + i \frac{T_{int}}{T_{ext}}$$

for $X = 1$ in the post-integration period.

The variables in this model are defined as follows:

M = extra-area imports of the EEC in constant prices and exchange rates of 1959, expressed as an index where 1958=100.

Y = national income in constant prices (1959) expressed as an index where 1958=100.

$\frac{P_M}{P_D}$ = relative price index (1958=100), where P_M is an index of import prices from the specific supplier and P_D is the GMP deflator of all the EEC countries.

T_{ext} = tariffs on imports from an extra-area supplier, especially weighted with weights, derived from the import commodity mix of the EEC from this supplier.

T_{int} = tariffs between the EEC members weighted with weights, derived from the import commodity mix of the EEC from this supplier.

There are obviously many problems to solve before this model can be successfully applied. The average weighted tariffs, both external and internal, have to be computed. If non weighted average tariffs or if poorly constructed weights and hence inappropriate average weighted tariffs are included in this model, it is certain that the independent variables explaining the effect of tariffs on imports will be insignificant.

In addition to seventeen observations and eight independent variables (including the cross-product of the dummy variables with

an independent variable and a constant) one would only have nine degrees of freedom left to conduct significant tests.

However, if these problems could be solved, the following important information could be derived from this model:

- b indicates the shift in the function attributed to the formation of the EEC.
- c indicates the change in the income elasticity of the demand for extra-area imports caused by the EEC.
- e indicates the change in the price elasticity of the demand for extra-area imports due to the formation of the EEC.
- g indicates the change in the demand for imports due to changes in external tariffs.
- i indicates the shift between external and internal demand for imports due to the formation of the external tariffs and the gradual elimination of the tariffs between the member countries.

It is clear that the feasibility of this model depends on the availability of data on weighted import tariffs.

To my knowledge, such data are not readily available and have to be constructed for each extra-area supplier.

A brief summary of the conclusions reached in this thesis may be necessary at this point. The empirical results of the relative share model presented in Chapter III, indicate that all communist countries of Eastern Europe, with the exception of Bulgaria, have a commodity composition of their exports which is favorable relative to the overall extra-area trade expanding effects of the EEC. Con-

sequently, the Common Market effect, which is an estimate of the trade expansion or diversion caused by the EEC and calculated on the basis of the competitive strength of the "average" extra-area supplier, is positive for all communist countries in the sample, except for Bulgaria.

The relative share model (Chapter III) also shows that Romania, Bulgaria, Albania, Yugoslavia, the GDR and Hungary are strong competitors in the EEC's market for extra-area imports. The USSR, Poland and Czechoslovakia, on the contrary, are weak competitors relative to the "average" extra-area supplier of the EEC.

In the 1960's, Yugoslavia, Bulgaria, Hungary, Poland and Czechoslovakia experienced a rise in the prices of their exports to the EEC, relative to the level of these prices in 1959. During the same period, the prices of the exports of Romania, the USSR, the GDR and Albania to the EEC, fell in comparison to their 1959 level.

On the basis of the total effect represented in the relative share model (Chapter III) and the results of the linear regression model (Chapter IV), it has been demonstrated that, by studying the effect of the EEC on the communist countries of Eastern Europe, one can divide the communist countries into two groups: those who gained from the formation of the EEC and those whose exports to the EEC suffered from trade diversion. Romania, Bulgaria, Yugoslavia, Albania, Hungary, the GDR and Poland shared in the extra-area trade expanding effects of the EEC. The USSR and Czechoslovakia, on the contrary, suffered from trade diversion. As a group, the communist

countries of Eastern Europe gained from the extra-area trade expansion caused by the formation of the EEC.⁵

FOOTNOTES

¹E. M. Bolasco, The New York Times, July 7, 1962, 3.

²Stanislas Zdiechowski, "The Impact of the Common Market on the Soviet Union", Studies on the Soviet Union, New Series, II April (1963), 54.

³Alec Nove, "The USSR and the EEC", Spectator, 208 (June, 1962), pp. 744-745.

⁴The study of the terms of trade effect of the EEC on the exports of the communist countries of Eastern Europe to the EEC requires data on the prices of the exports of the EEC as a group to the communist countries of Eastern Europe. These are not available, especially not for seven commodity groups, and could be computed on the Basis of the method presented in Appendix B.

⁵Bela Balassa, "Trade Creation and Trade Diversion in the European Common Market", The Economic Journal, LXXVII (March, 1967), Appendix.

APPENDIX A: TABLES REPRESENTING THE EMPIRICAL RESULTS OF THE
RELATIVE SHARE MODEL

Explanation of the Variables in Appendix A: An Example.

- 1 = M_{1959} are the imports of the EEC from a specific extra-area supplier in 1959 prices and 1959 exchange rates.
- 2 = $M_{1958-1960}$ is the average value of the EEC's imports from a specific extra-area supplier in 1959 prices and 1959 exchange rates.
- 3 = M_{1966}^{11} is the estimated value of imports of the EEC in 1966 from the same extra-area supplier, derived by applying the growth rates for 1952-1959 to M_{1959} .
- 4 = M_{1966}^{21} is the estimated value of the EEC's imports in 1966 from a specific extra-area supplier, derived by applying growth rates for 1959-1966 to M_{1959} .
- 5 = M_{1966}^{12} is the estimated value of the EEC's imports in 1966 from a specific extra-area supplier, derived by applying growth rates for 1952-1959 to $M_{1958-1960}$.
- 6 = M_{1966}^{22} is the estimated value of the EEC's imports in 1966 from a specific extra-area supplier, derived by applying growth rates for the period 1959-1966 to $M_{1958-1960}$.
- 7 = M_{1966} in 1959 p. are the actual imports of the EEC from a specific extra-area supplier in prices of 1959.
- 8 = M_{1966} in 1966 p. are the actual imports of the EEC from a specific extra-area supplier in current prices.

- 9 = C.M.₁ is the Common Market effect, derived as (4) - (3).
- 10 = C.M.₂ is the Common Market effect, derived as (6) - (5).
- 11 = Comp.E.₁ is the competitive effect derived as (7) - (4).
- 12 = Comp.E.₂ is the competitive effect derived as (7) - (6).
- 13 = P.E. is the price effect derived as (8) - (7).
- 14 = T.E.₁ is the total effect and can be derived as
(8) - (3) or (9) + (11) + (13)
- 15 = T.E.₂ is the total effect and can be derived as
(8) - (5) or (10) + (12) + (13)

Source: The data in the following tables are computed from:

United Nations, Statistical Office, Commodity Trade Statistics, Series D, 1952-1966.

Figures in constant prices and exchange rates of 1959 are computed on the basis of the method proposed in Appendix B.

Table 1. The Effects of the EEC on her Members' Imports from Yugoslavia: 1959-60. In 1000 U.S. \$.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	59,793	59,420	68,940	68,509	73,191	72,726
RawM	43,595	43,035	45,055	46,289	44,477	45,694	45,603	50,473
Fuels	1,566	1,550	1,700	1,769	1,683	1,751	1,938	1,922
Chem	3,367	2,918	3,804	3,710	3,297	3,215	2,285	2,870
Mach	1,056	680	1,076	1,178	693	765	541	674
Trans	248	268	258	269	279	291	288	439
Man	20,640	20,473	22,757	22,817	22,573	22,633	19,266	21,665
Total	127,095	134,216	134,446	135,455	141,945	142,863	143,116	150,769

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 373	- 430	13,771	4,681	- 465	12,932	3,785
RawM	1,233	1,217	- 685	- 90	4,869	5,417	5,995
Fuels	69	68	169	186	- 16	221	238
Chem	- 93	- 81	- 1,424	- 930	584	- 934	- 427
Mach	102	71	- 637	- 224	132	- 402	- 19
Trans	11	12	- 18	- 3	150	143	159
Man	59	59	- 3,550	- 3,366	2,398	- 1,092	- 908
Total	1,008	917	7,624	253	7,652	16,285	8,823

Table 2. Effects of the EEC on her Members' Imports from Yugoslavia: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	63,140	62,953	72,799	71,891	62,648	64,717
RawM	43,595	43,035	46,563	49,149	45,966	48,518	48,936	50,325
Fuels	1,566	1,550	1,846	1,999	1,827	1,979	2,242	1,856
Chem	3,367	2,918	4,297	4,088	3,725	3,543	2,869	3,705
Mach	1,056	686	1,097	1,316	713	854	737	975
Trans	248	268	269	293	291	317	399	306
Man	20,640	20,473	25,092	25,224	24,889	25,020	27,992	31,587
Total	127,095	134,216	142,307	144,423	150,212	152,125	145,826	153,471

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 787	- 907	295	-9,243	2,068	1,576	- 8,082
RawM	2,585	2,551	- 212	418	1,388	3,761	4,358
Fuels	153	151	242	262	- 386	9	28
Chem	- 209	- 181	-1,218	- 673	835	- 592	- 20
Mach	218	141	- 578	- 117	237	- 122	261
Trans	24	26	105	82	- 93	36	14
Man	132	131	2,768	2,972	3,594	6,494	6,697
Total	2,116	1,913	1,402	-6,298	7,644	11,163	3,258

Table 3. The Effects of the EEC on her Members' Imports from Yugoslavia: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	66,673	65,433	76,872	75,443	80,811	87,071
RawM	43,595	43,035	48,124	52,187	47,506	51,517	54,961	59,306
Fuels	1,566	1,550	2,004	2,259	1,984	2,237	5,518	4,762
Chem	3,367	2,918	4,855	4,504	4,208	3,904	3,055	2,859
Mach	1,056	686	1,119	1,469	727	954	2,397	2,928
Trans	248	268	280	319	303	345	828	901
Man	20,640	20,473	27,665	27,884	27,442	27,659	51,437	57,049
Total	127,095	134,216	150,724	154,058	159,046	162,061	199,010	214,876

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-1,240	-1,429	15,377	5,368	6,259	20,397	10,198
RawM	4,063	4,010	2,774	3,444	4,344	11,181	11,799
Fuels	254	252	3,258	3,280	- 756	2,757	2,777
Chem	- 351	- 304	- 1,449	- 849	- 196	- 1,996	- 1,349
Mach	349	227	928	1,443	530	1,808	2,200
Trans	38	41	509	483	72	620	597
Man	218	217	23,553	23,778	5,611	29,383	29,606
Total	3,333	3,015	44,951	36,949	15,865	64,151	55,829

Table 4. Effects of the EEC on her Members' Imports from Yugoslavia: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	70,405	68,666	81,175	79,171	95,235	112,157
RawM	43,595	43,035	49,737	55,413	49,099	54,702	64,428	71,051
Fuels	1,566	1,550	2,176	2,553	2,155	2,527	5,998	5,019
Chem	3,367	2,918	5,486	4,963	4,755	4,302	3,470	3,411
Mach	1,056	686	1,141	1,640	741	1,065	4,484	5,307
Trans	248	268	292	347	316	375	2,337	2,403
Man	20,640	20,473	30,503	30,825	30,257	30,576	65,137	68,102
Total	127,095	134,216	159,743	164,411	168,499	172,721	241,092	267,450

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-1,738	-2,004	26,569	16,064	16,921	41,751	30,981
RawM	5,676	5,603	9,015	9,726	6,622	21,313	21,951
Fuels	376	372	3,444	3,470	- 979	2,842	2,863
Chem	- 522	- 452	- 1,493	- 832	- 59	- 2,075	- 1,344
Mach	499	324	2,844	3,418	822	4,165	4,565
Trans	54	59	1,989	1,961	65	2,110	2,086
Man	321	319	34,311	34,560	2,964	37,598	37,844
Total	4,667	4,221	76,681	68,370	26,357	107,706	98,950

Table 5. The Effects of the EEC on her Members' Imports from Yugoslavia: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	74,346	72,058	85,719	83,081	56,941	84,655
RawM	43,595	43,035	51,402	58,840	50,742	58,084	57,193	66,710
Fuels	1,566	1,550	2,363	2,885	2,340	2,856	2,747	2,086
Chem	3,367	2,918	6,198	5,469	5,372	4,740	2,763	4,278
Mach	1,056	686	1,163	1,831	755	1,189	5,619	5,619
Trans	248	268	305	378	330	408	5,580	5,609
Man	20,640	20,473	33,632	34,078	33,361	33,803	64,350	74,102
Total	127,095	134,216	169,412	175,541	178,621	184,165	195,195	243,059

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-2,287	- 2,637	-15,117	-26,140	27,713	10,309	- 1,064
RawM	7,437	7,341	- 1,646	- 890	9,516	15,307	15,967
Fuels	521	516	- 138	- 109	- 661	- 277	- 254
Chem	- 728	- 631	- 2,705	- 1,976	1,514	- 1,920	- 1,094
Mach	667	433	3,787	4,429	0	4,455	4,863
Trans	72	78	5,202	5,171	28	5,303	5,278
Man	445	442	30,271	30,547	9,751	40,469	40,740
Total	6,128	5,543	19,654	11,030	47,863	73,646	64,437

Table 6. The Effects of the EEC on her Members' Imports from Yugoslavia: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	78,507	75,620	90,517	87,188	74,044	111,033
RawM	43,595	43,035	53,124	62,475	52,442	61,673	54,513	64,790
Fuels	1,566	1,550	2,566	3,260	2,540	3,228	4,586	2,862
Chem	3,367	2,918	7,002	6,026	6,069	5,223	6,276	7,848
Mach	1,056	686	1,186	2,044	770	1,328	11,253	8,548
Trans	248	268	318	411	344	445	5,318	5,266
Man	20,640	20,473	37,083	37,674	36,784	37,369	74,369	93,689
Total	127,095	134,216	179,790	187,513	189,469	196,456	230,361	294,036

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-2,887	-3,329	- 1,575	-13,143	36,988	32,525	20,515
RawM	9,351	9,231	- 7,962	- 7,160	10,276	11,665	12,347
Fuels	694	687	1,325	1,358	- 1,724	295	321
Chem	- 976	- 846	249	1,052	1,571	845	1,778
Mach	858	557	9,208	9,924	- 2,705	7,361	7,777
Trans	93	100	4,906	4,873	- 52	4,947	4,921
Man	590	585	36,695	36,999	19,319	56,605	56,904
Total	7,722	6,986	42,848	33,905	63,674	114,245	104,566

Table 7. The Effects of the EEC on her Members' Imports from Yugoslavia: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	82,901	79,357	95,583	91,496	83,752	121,666
RawM	43,595	43,035	54,903	66,338	54,198	65,486	59,666	66,784
Fuels	1,566	1,550	2,786	3,684	2,758	3,647	22,872	9,728
Chem	3,367	2,918	7,911	6,640	6,857	5,755	6,343	7,495
Mach	1,056	686	1,209	2,282	785	1,482	7,720	9,912
Trans	248	268	331	447	358	484	4,320	3,964
Man	20,640	20,473	40,887	41,649	40,557	41,312	96,805	119,810
Total	127,095	134,216	190,933	200,400	201,100	209,667	281,481	339,359

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-3,544	- 4,086	4,394	- 7,744	37,913	38,764	26,082
RawM	11,434	11,288	- 6,672	- 5,820	7,117	11,880	12,585
Fuels	897	888	19,188	19,224	-13,144	6,941	6,969
Chem	-1,271	- 1,101	- 297	587	1,151	- 416	637
Mach	1,072	696	5,437	6,237	2,191	8,702	9,126
Trans	115	125	3,872	3,836	- 356	3,632	3,605
Man	761	755	55,156	55,493	23,004	78,922	79,252
Total	9,467	8,566	81,080	71,814	57,877	148,425	138,258

Table 8. The Effects of the EEC on her Members' Imports from Yugoslavia: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	56,623	65,284	87,539	83,275	100,930	96,014	127,394	166,366
RawM	43,595	43,035	56,743	69,532	56,014	63,292	57,619	62,516
Fuels	1,566	1,550	3,025	4,163	2,995	4,121	15,725	9,720
Chem	3,367	2,918	8,938	7,317	7,748	6,342	6,746	7,841
Mach	1,056	686	1,233	2,548	801	1,655	8,748	9,174
Trans	248	268	346	487	374	526	4,837	4,500
Man	20,640	20,473	45,083	46,043	44,719	45,671	110,587	121,880
Total	127,095	134,216	202,910	213,367	213,584	217,624	331,659	381,997

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 4,263	-4,915	44,119	31,380	38,971	78,826	65,435
RawM	12,788	7,277	-11,912	- 5,672	4,896	5,772	6,501
Fuels	1,137	1,126	11,561	11,603	- 6,005	6,694	6,724
Chem	- 1,621	-1,405	- 571	403	1,094	- 1,097	92
Mach	1,314	854	6,200	7,093	425	7,940	8,372
Trans	141	152	4,350	4,310	- 337	4,153	4,125
Man	959	952	64,544	64,916	11,292	76,796	77,160
Total	10,457	4,040	118,291	114,034	50,337	179,086	168,412

Table 9. The Effects of the EEC on her Members' Imports from Poland: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	64,375	63,973	77,494	77,010	108,370	95,610
RawM	15,676	17,519	16,201	16,644	18,106	18,602	24,452	24,003
Fuels	28,621	29,900	31,076	32,341	32,465	33,787	25,300	24,656
Chem	10,185	9,287	11,507	11,222	10,492	10,233	10,449	12,991
Mach	823	582	839	918	593	650	316	325
Trans	440	907	462	483	945	987	2,196	1,266
Man	14,172	14,400	15,626	15,667	15,877	15,919	12,322	12,396
Total	130,879	145,982	140,088	141,251	155,976	157,190	183,408	171,247

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 402	- 484	44,396	31,359	-12,760	31,234	18,115
RawM	443	495	7,808	5,850	- 449	7,801	5,896
Fuels	1,265	1,321	- 7,041	- 8,487	- 644	- 6,420	- 7,809
Chem	- 284	- 259	- 773	215	2,541	1,483	2,498
Mach	79	56	- 602	- 333	8	- 514	- 268
Trans	20	41	1,713	1,209	- 930	803	320
Man	41	41	- 3,344	- 3,596	73	- 3,230	- 3,481
Total	1,163	1,213	42,156	26,218	-12,161	31,158	15,270

Table 10, The Effects of the EEC on her Members' Imports from Poland: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	67,978	67,131	81,831	80,811	67,292	79,143
RawM	15,676	17,519	16,743	17,673	18,712	19,751	21,992	26,294
Fuels	28,621	29,900	33,744	36,546	35,252	38,179	25,854	25,360
Chem	10,185	9,287	13,001	12,366	11,855	11,276	9,481	12,779
Mach	823	582	855	1,025	605	725	1,638	1,647
Trans	440	907	482	525	985	1,074	1,570	947
Man	14,172	14,400	17,228	17,319	17,506	17,598	9,839	9,789
Total	130,879	145,982	150,034	152,588	166,749	169,417	137,669	155,959

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 847	-1,020	161	-13,518	11,850	11,164	- 2,688
RawM	929	1,038	4,319	2,240	4,301	9,550	7,581
Fuels	2,801	2,927	-10,691	-12,324	- 494	- 8,384	- 9,892
Chem	- 634	- 578	- 2,885	- 1,795	3,297	- 222	923
Mach	170	120	612	912	8	791	1,041
Trans	43	88	1,044	496	- 623	464	- 38
Man	90	92	- 7,480	- 7,759	- 50	- 7,439	- 7,717
Total	2,553	2,668	-14,918	-31,748	18,289	5,924	-10,790

Table 11. The Effects of the EEC on her Members' Imports from Poland: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	71,782	70,447	86,410	84,803	78,752	79,620
RawM	15,676	17,519	17,304	18,765	19,339	20,972	29,471	29,688
Fuels	28,621	29,900	36,640	41,297	38,278	43,143	26,700	25,009
Chem	10,185	9,287	14,688	13,626	13,394	12,425	9,850	10,648
Mach	823	582	872	1,145	617	810	1,090	1,267
Trans	440	907	503	572	1,027	1,168	3,152	2,455
Man	14,172	14,400	18,996	19,146	19,302	19,454	15,104	14,482
Total	130,879	145,982	160,788	165,000	178,370	182,778	164,122	163,169

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-1,335	-1,607	8,304	- 6,051	867	7,837	- 6,790
RawM	1,461	1,632	10,705	8,498	216	12,383	10,348
Fuels	4,656	4,864	-14,597	-16,443	-1,691	-11,631	-13,269
Chem	-1,062	- 968	- 3,775	- 2,574	797	- 4,040	- 2,746
Mach	272	193	- 54	280	176	394	649
Trans	68	140	2,580	1,984	- 697	1,951	1,427
Man	150	152	- 4,041	- 4,350	- 622	- 4,514	- 4,820
Total	4,212	4,408	- 878	-18,656	- 953	2,380	-15,201

Table 12. The Effects of the EEC on her Members' Imports from Poland: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	75,800	73,928	91,246	88,994	74,444	89,862
RawM	15,676	17,519	17,884	19,925	19,987	22,268	32,031	31,716
Fuels	28,621	29,900	39,783	46,666	41,561	48,752	28,371	27,264
Chem	10,185	9,287	16,595	15,014	15,132	13,691	9,870	10,381
Mach	823	582	889	1,278	629	904	1,545	1,767
Trans	440	907	519	616	1,071	1,271	0	0
Man	14,172	14,400	20,944	21,165	21,282	21,506	17,139	16,901
Total	130,879	145,982	172,417	178,596	190,912	197,390	163,402	177,891

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-1,871	-2,252	515	-14,549	15,417	14,061	- 1,384
RawM	2,041	2,281	12,105	9,762	- 315	13,831	11,728
Fuels	6,883	7,191	-18,295	-20,380	- 1,107	-12,519	-14,297
Chem	-1,580	-1,441	- 5,144	- 3,820	510	- 6,214	- 4,751
Mach	388	275	267	640	221	877	1,137
Trans	97	200	- 616	- 1,271	0	- 519	- 1,071
Man	221	224	- 4,026	- 4,367	- 238	- 4,043	- 4,381
Total	6,179	6,477	-15,194	-33,987	14,488	5,473	-13,021

Table 13. The Effects of the EEC on her Members' Imports from Poland: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	80,043	77,580	96,354	93,389	61,608	71,300
RawM	15,676	17,519	18,483	21,157	20,657	23,646	31,039	35,329
Fuels	28,621	29,900	43,197	52,734	45,128	55,091	28,219	26,625
Chem	10,185	9,287	18,749	16,544	17,096	15,086	13,067	12,642
Mach	823	582	906	1,427	641	1,010	1,931	1,742
Trans	440	907	541	671	1,117	1,383	173	167
Man	14,172	14,400	23,093	23,399	23,465	23,776	19,372	19,990
Total	130,879	145,982	185,015	193,514	204,461	213,383	155,413	167,795

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-2,462	-2,964	-15,971	-31,781	9,691	-8,743	-25,054
RawM	2,674	2,988	9,881	7,393	4,289	16,845	14,671
Fuels	9,536	9,962	-24,515	-26,872	-1,594	-16,572	-18,503
Chem	-2,205	-2,010	-3,476	-2,018	-425	-6,107	-4,454
Mach	520	368	504	921	-189	835	1,100
Trans	129	266	-497	-1,209	-6	-374	-950
Man	306	311	-4,026	-4,403	617	-3,103	-3,475
Total	8,498	8,922	-38,100	-57,969	12,381	-17,220	-36,666

Table 14. The Effects of the EEC on her Members' Imports from Poland: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	84,523	81,414	101,748	98,005	92,861	115,830
RawM	15,676	17,519	19,102	22,465	21,349	25,107	37,251	42,320
Fuels	28,621	29,900	46,904	59,588	49,000	62,252	27,908	25,061
Chem	10,185	9,287	21,182	18,230	19,315	16,623	13,633	14,667
Mach	823	582	924	1,593	654	1,127	2,556	2,464
Trans	440	907	564	730	1,164	1,505	1,800	1,988
Man	14,172	14,400	25,462	25,868	25,873	26,284	14,237	18,928
Total	130,879	145,982	198,665	209,890	219,105	230,906	190,247	221,258

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 3,109	- 3,742	11,446	- 5,144	22,968	31,306	14,081
RawM	3,362	3,757	14,785	12,144	5,068	23,217	20,970
Fuels	12,684	13,251	-31,680	-34,344	- 2,847	-21,843	-23,939
Chem	- 2,952	- 2,692	- 4,596	- 2,990	1,033	- 6,515	- 4,648
Mach	668	473	963	1,428	- 92	1,539	1,809
Trans	165	341	1,070	294	187	1,423	823
Man	405	411	-11,630	-12,047	4,690	- 6,534	- 6,945
Total	11,225	11,800	-19,643	-40,658	31,010	22,592	2,152

Table 15. The Effects of the EEC on her Members' Imports from Poland: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	89,254	85,438	107,443	102,849	86,595	119,818
RawM	15,676	17,519	19,742	23,854	22,064	26,659	41,243	48,235
Fuels	28,621	29,900	50,928	67,336	53,204	70,346	33,032	25,246
Chem	10,185	9,287	23,932	20,087	21,823	18,317	13,150	14,497
Mach	823	582	942	1,778	667	1,256	3,660	3,089
Trans	440	907	594	801	1,214	1,638	8,102	3,310
Man	14,172	14,400	28,074	28,597	28,527	29,058	24,610	27,735
Total	130,879	145,982	213,469	227,895	234,943	250,127	210,395	241,930

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 3,816	- 4,593	1,156	-16,253	33,222	30,563	-12,374
RawM	4,111	4,595	17,389	14,584	6,991	28,492	26,170
Fuels	16,408	17,141	-34,304	-37,314	- 7,786	-25,682	-27,958
Chem	- 3,844	- 3,505	- 6,937	- 5,166	1,346	- 9,435	- 7,326
Mach	836	591	1,881	2,401	- 571	2,146	2,421
Trans	207	424	7,300	6,464	- 4,792	2,715	2,095
Man	522	531	- 3,986	- 4,447	3,124	- 339	- 792
Total	14,425	15,184	-17,500	-39,732	31,534	28,460	6,986

Table 16. The Effects of the EEC on her Members' Imports from Poland: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	60,962	73,385	94,247	89,656	113,453	107,927	85,740	112,349
RawM	15,676	17,519	20,403	25,327	22,803	28,306	56,614	51,810
Fuels	28,621	29,900	55,298	76,091	57,770	79,493	41,346	36,199
Chem	10,185	9,287	27,039	22,135	24,655	20,183	17,747	19,597
Mach	823	582	961	1,985	680	1,405	4,541	4,095
Trans	440	907	619	872	1,265	1,782	3,939	3,981
Man	14,172	14,400	30,955	31,614	31,454	32,124	30,830	31,831
Total	130,879	145,982	229,525	247,684	252,083	271,222	240,761	259,862

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 4,590	- 5,525	- 3,916	-22,186	26,608	18,101	- 1,104
RawM	4,923	5,502	31,287	28,308	- 4,804	31,406	29,006
Fuels	20,793	21,722	-34,744	-38,146	- 5,147	-19,099	-21,571
Chem	- 4,904	- 4,471	- 4,387	- 2,436	1,849	- 7,442	- 5,058
Mach	1,024	725	2,555	3,136	- 446	3,133	3,414
Trans	252	516	3,067	2,156	41	3,361	2,715
Man	659	669	- 784	- 1,293	1,000	875	376
Total	18,159	19,139	6,923	-30,461	19,100	30,336	7,778

Table 17. The Effects of the EEC on her Members' Imports from the USSR: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	67,366	66,945	45,343	45,060	48,495	47,998
RawM	112,572	110,644	116,343	119,528	114,350	117,482	131,665	146,314
Fuels	128,634	123,734	139,670	145,356	134,351	139,820	159,873	143,707
Chem	18,664	15,859	21,086	20,565	17,918	17,475	14,882	18,910
Mach	810	1,264	825	904	1,288	1,411	2,479	2,316
Trans	213	334	222	231	348	363	660	591
Man	52,960	49,381	58,393	58,547	54,448	54,591	47,005	53,532
Total	377,647	344,157	403,908	412,079	368,048	376,204	405,061	413,368

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 421	- 283	-18,450	3,435	- 497	-19,368	2,654
RawM	3,185	3,131	12,136	14,183	14,648	29,970	31,963
Fuels	5,685	5,469	14,517	20,053	-16,166	4,036	9,355
Chem	- 520	- 442	- 5,682	- 2,592	4,027	- 2,176	991
Mach	78	122	1,574	1,067	- 163	1,490	1,027
Trans	9	15	428	296	- 69	368	242
Man	153	143	-11,542	- 7,586	- 6,526	- 4,861	- 916
Total	8,171	8,155	- 7,018	28,857	8,306	9,459	45,319

Table 18. The Effects of the EEC on her Members' Imports from the USSR: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	71,136	70,249	47,881	47,284	72,055	68,890
RawM	112,572	110,644	120,238	126,913	118,179	124,740	127,468	142,977
Fuels	128,634	123,734	151,659	164,252	145,883	157,996	191,539	172,955
Chem	18,664	15,859	23,824	22,661	20,244	19,256	19,917	22,690
Mach	810	1,264	842	1,009	1,314	1,575	3,012	3,158
Trans	213	334	231	252	363	395	874	619
Man	52,960	49,381	64,383	64,722	60,033	60,349	48,856	55,027
Total	377,647	344,157	432,315	450,062	393,898	411,598	463,723	466,316

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 886	- 596	1,805	24,770	- 3,165	- 2,246	21,008
RawM	6,675	6,561	555	2,728	15,508	22,738	24,797
Fuels	12,593	12,113	27,286	33,542	-18,584	21,295	27,071
Chem	- 1,162	- 988	- 2,744	661	2,772	- 1,134	2,445
Mach	167	261	2,002	1,436	145	2,315	1,843
Trans	20	32	621	478	255	387	255
Man	338	316	-15,866	-11,493	6,170	- 9,356	- 5,006
Total	17,746	17,699	13,661	52,124	2,592	34,000	72,417

Table 19. The Effects of the EEC on her Members' Imports from the USSR: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	75,117	73,720	50,560	49,620	55,507	48,287
RawM	112,572	110,644	124,268	134,759	122,140	132,452	157,417	170,852
Fuels	128,634	123,734	164,677	185,605	158,405	178,536	120,344	100,548
Chem	18,664	15,859	26,917	24,970	22,872	21,218	20,279	14,923
Mach	810	1,264	858	1,127	1,340	1,758	2,221	2,548
Trans	213	334	241	274	378	430	1,642	1,190
Man	52,960	49,381	70,987	71,548	66,191	66,714	92,947	99,800
Total	337,647	344,157	463,067	492,007	421,888	450,731	450,359	438,148

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,397	- 940	-18,213	5,886	- 7,220	-26,830	- 2,273
RawM	10,491	10,312	22,657	24,965	13,434	46,583	48,711
Fuels	20,928	20,131	-65,261	-58,192	-19,796	-64,129	-57,857
Chem	- 1,946	- 1,654	- 4,691	- 939	- 5,356	-11,994	- 7,949
Mach	268	418	1,094	462	326	1,689	1,207
Trans	33	51	1,367	1,211	- 452	948	811
Man	561	523	21,398	26,233	- 6,852	28,812	33,609
Total	28,939	28,843	-41,647	- 371	-12,211	-24,919	16,259

Table 20. The Effects of the EEC on her Members' Imports from the USSR: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	79,321	77,362	53,390	52,072	59,328	58,101
RawM	112,572	110,644	128,433	143,090	126,234	140,639	163,717	171,880
Fuels	128,634	123,734	178,801	209,737	171,991	201,749	295,428	233,079
Chem	18,664	15,859	30,411	27,514	25,841	23,380	23,610	20,354
Mach	810	1,264	875	1,258	1,366	1,963	2,753	2,234
Trans	213	334	251	298	394	468	1,447	1,074
Man	52,960	49,381	78,269	79,095	72,980	73,751	74,388	83,591
Total	337,647	344,157	496,363	538,358	452,199	494,025	620,674	570,313

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,958	- 1,318	-18,034	7,256	- 1,227	-21,220	4,710
RawM	14,656	14,405	20,627	23,077	8,162	43,446	45,645
Fuels	30,936	29,758	85,691	93,679	-62,349	54,277	61,087
Chem	- 2,896	- 2,461	- 3,904	230	- 3,256	-10,057	- 5,487
Mach	382	597	1,495	789	- 519	1,358	867
Trans	46	73	1,149	979	- 373	822	679
Man	826	770	- 4,707	636	9,202	5,321	10,610
Total	41,994	41,825	82,316	126,649	-50,361	73,949	118,113

Table 21. The Effects of the EEC on her Members' Imports from the USSR: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	83,761	81,184	56,378	54,644	20,729	24,245
RawM	112,572	110,644	132,733	151,938	130,460	149,336	162,750	185,425
Fuels	128,634	123,734	194,147	237,008	186,752	227,981	291,084	233,828
Chem	18,664	15,859	34,358	30,317	29,195	25,762	21,460	20,084
Mach	810	1,264	892	1,404	1,393	2,192	3,024	3,127
Trans	213	334	262	324	411	509	1,387	1,035
Man	52,960	49,381	86,298	87,442	80,467	81,533	70,781	79,488
Total	337,647	344,157	532,454	589,620	485,059	541,959	571,219	547,232

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 2,577	- 1,734	-60,454	-33,914	3,515	-59,516	-32,133
RawM	19,204	18,875	10,812	13,413	22,674	52,691	54,964
Fuels	42,860	41,228	54,076	63,103	-57,256	39,680	47,075
Chem	- 4,040	- 3,433	- 8,857	- 4,301	- 1,376	-14,274	- 9,111
Mach	512	799	1,619	832	102	2,234	1,733
Trans	62	98	1,062	877	- 352	772	623
Man	1,143	1,066	-16,660	-10,752	8,706	- 6,810	- 979
Total	57,166	56,900	-18,401	29,259	-23,987	14,777	62,172

Table 22. The Effects of the EEC on her Members' Imports from the USSR: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	88,450	85,196	59,534	57,344	48,431	52,836
RawM	112,572	110,644	137,180	161,326	134,831	158,564	180,861	219,209
Fuels	128,634	123,734	210,805	267,815	202,776	257,615	249,130	198,512
Chem	18,664	15,859	38,817	33,406	32,984	28,386	25,631	23,491
Mach	810	1,264	910	1,568	1,420	2,447	6,563	5,891
Trans	213	334	273	353	429	554	2,875	2,303
Man	52,960	49,381	95,153	96,667	88,723	90,136	88,498	98,569
Total	337,647	344,157	571,590	646,336	520,700	595,050	601,993	600,811

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 3,253	- 2,189	-36,765	- 8,913	4,404	-35,614	- 6,698
RawM	24,146	23,733	19,534	22,297	38,347	82,028	84,377
Fuels	57,010	54,839	-18,685	- 8,485	-50,618	-12,298	- 4,264
Chem	- 5,410	- 4,597	- 7,774	- 2,755	- 2,140	-15,326	- 9,493
Mach	658	1,027	4,995	4,116	- 672	4,980	4,470
Trans	80	125	2,522	2,321	- 572	2,029	1,873
Man	1,514	1,412	- 8,169	- 1,637	10,070	3,415	9,845
Total	74,745	74,350	-44,342	6,943	- 1,182	29,220	80,110

Table 23. The Effects of the EEC on her Members' Imports from the USSR: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	93,400	89,407	62,866	60,178	53,335	54,581
RawM	112,572	110,644	141,773	171,300	139,345	168,367	193,670	227,114
Fuels	128,634	123,734	228,891	302,637	220,173	291,110	229,315	229,100
Chem	18,664	15,859	43,856	36,811	37,266	31,279	30,521	28,554
Mach	810	1,264	927	1,750	1,448	2,732	5,892	5,069
Trans	213	334	285	384	447	603	2,538	2,150
Man	52,960	49,381	104,913	106,867	97,824	99,646	106,952	108,636
Total	337,647	344,157	614,048	709,159	559,372	653,919	622,227	655,204

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 3,993	- 2,687	-36,071	- 6,843	1,245	-38,819	- 8,285
RawM	29,527	29,021	22,370	25,303	33,443	85,340	87,768
Fuels	73,745	70,937	-73,322	-61,795	- 215	208	8,926
Chem	- 7,045	- 5,986	- 6,289	- 757	- 1,967	-15,302	- 8,712
Mach	822	1,284	4,141	3,160	- 823	4,141	3,620
Trans	99	156	2,153	1,934	- 388	1,864	1,702
Man	1,954	1,822	84	7,305	1,683	3,722	10,811
Total	95,111	94,546	-86,932	-31,692	32,976	41,155	95,831

Table 24. The Effects of the EEC on her Members' Imports from the USSR: 1959-67.

Comm Group	1	2	3	4	5	6	7	8
Food	63,794	42,938	98,625	93,821	66,383	63,150	57,689	54,492
RawM	112,572	110,644	146,523	181,882	144,014	178,767	241,877	268,875
Fuels	128,634	123,734	248,533	341,986	239,067	328,961	358,367	300,103
Chem	18,664	15,859	49,549	40,562	42,103	34,467	44,518	42,248
Mach	810	1,264	946	1,954	1,476	3,050	11,001	9,974
Trans	213	334	297	418	466	656	3,152	2,457
Man	52,960	49,381	115,680	118,143	107,864	110,160	91,651	93,933
Total	337,647	344,157	660,156	778,769	601,376	719,214	808,259	772,082

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 4,803	- 3,233	-36,131	- 5,460	- 3,197	-44,133	-11,891
RawM	35,358	34,753	59,995	63,109	26,997	122,351	124,860
Fuels	93,452	89,893	16,381	29,406	-58,264	51,569	61,035
Chem	- 8,986	- 7,636	3,956	10,051	- 2,270	- 7,301	144
Mach	1,008	1,573	9,046	7,950	- 1,027	9,027	8,497
Trans	121	190	2,733	2,495	- 695	2,159	1,990
Man	2,462	2,296	-26,491	-18,508	2,281	-21,747	-13,931
Total	118,613	117,837	29,490	89,045	-36,177	111,925	170,705

Table 25. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	22,602	22,461	20,872	20,741	18,504	17,300
RawM	23,964	27,088	24,766	25,444	27,996	28,762	34,411	30,289
Fuels	9,220	9,455	10,011	10,418	10,266	10,684	11,038	10,354
Chem	8,044	8,092	9,088	8,863	9,143	8,917	9,331	10,892
Mach	7,849	8,858	8,002	8,762	9,032	9,889	10,802	11,114
Trans	5,781	4,626	6,026	6,290	4,823	5,034	5,277	5,269
Man	35,061	35,187	38,658	38,759	38,797	38,899	37,542	37,966
Total	111,323	113,074	119,156	121,001	120,931	122,929	126,909	123,184

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 141	- 130	-3,956	-2,237	-1,204	-5,302	-3,572
RawM	678	766	8,966	5,648	-4,122	5,522	2,292
Fuels	407	417	619	353	- 684	342	87
Chem	- 224	- 225	468	414	1,560	1,803	1,748
Mach	759	857	2,039	912	311	3,111	2,081
Trans	263	210	-1,012	243	- 8	- 757	445
Man	101	102	-1,217	-1,356	423	- 692	- 831
Total	1,845	1,998	5,907	3,979	-3,725	4,027	2,252

Table 26. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	23,867	23,570	22,040	21,765	19,158	17,849
RawM	23,964	27,088	25,595	27,017	28,935	30,539	33,707	36,048
Fuels	9,220	9,455	10,870	11,773	11,147	12,073	12,642	12,527
Chem	8,044	8,092	10,268	9,767	10,330	9,826	9,874	11,199
Mach	7,849	8,858	8,159	9,782	9,209	11,040	10,650	12,661
Trans	5,781	4,626	6,282	6,844	5,028	5,478	6,478	6,073
Man	35,061	35,187	42,623	42,848	42,777	43,002	38,707	38,699
Total	111,323	113,074	127,668	131,602	129,468	133,725	131,219	135,056

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 297	- 274	-4,411	-2,607	-1,309	- 6,018	-4,191
RawM	1,421	1,604	6,690	3,167	2,340	10,452	7,112
Fuels	902	925	869	568	- 115	1,656	1,379
Chem	- 501	- 504	107	48	1,324	930	868
Mach	1,622	1,831	868	390	2,010	4,501	3,451
Trans	561	449	- 366	1,000	- 405	- 209	1,044
Man	224	225	-4,140	-4,294	- 8	- 3,924	-4,078
Total	3,933	4,257	- 382	-2,506	3,836	7,387	5,587

Table 27. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	25,203	24,734	23,273	22,840	20,912	23,244
RawM	23,964	27,088	26,453	28,687	29,903	32,428	36,268	37,292
Fuels	9,220	9,455	11,803	13,303	12,104	13,643	13,236	12,516
Chem	8,044	8,092	11,601	10,762	11,671	10,827	10,399	9,428
Mach	7,849	8,858	8,319	10,921	9,390	12,325	13,613	15,690
Trans	5,781	4,626	6,549	7,447	5,242	5,960	4,122	3,740
Man	35,061	35,187	46,995	47,367	47,164	47,537	36,689	36,184
Total	111,323	113,074	136,927	143,223	138,750	145,563	135,242	138,094

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 468	- 432	-3,821	- 1,927	2,331	- 1,959	- 29
RawM	2,233	2,524	7,580	3,840	1,023	10,838	7,388
Fuels	1,500	1,538	- 67	- 406	- 720	712	411
Chem	- 838	- 844	- 362	- 427	- 971	- 2,173	- 2,243
Mach	2,601	2,935	2,692	1,288	2,076	7,370	6,299
Trans	897	718	-3,324	- 1,837	- 382	- 2,809	- 1,502
Man	371	372	-10,677	-10,848	- 505	-10,811	-10,980
Total	6,296	6,813	-7,980	-10,320	2,851	1,166	- 656

Table 28. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	26,613	25,956	24,576	23,969	21,010	29,078
RawM	23,964	27,088	27,340	30,460	30,905	34,432	40,149	39,726
Fuels	9,220	9,455	12,816	15,033	13,142	15,416	14,043	13,665
Chem	8,044	8,092	13,106	11,858	13,186	11,930	9,450	7,856
Mach	7,849	8,858	8,483	12,192	9,574	13,760	11,194	12,798
Trans	5,781	4,626	6,828	8,103	5,465	6,485	7,076	5,935
Man	35,061	35,187	51,816	52,363	52,003	52,552	41,377	38,082
Total	111,323	113,094	147,005	155,968	148,853	158,547	144,303	147,140

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 657	- 606	- 4,945	- 2,958	8,067	2,464	4,501
RawM	3,120	3,526	9,688	5,716	- 423	12,385	8,820
Fuels	2,217	2,274	- 989	- 1,373	- 378	848	522
Chem	-1,248	-1,255	- 2,407	- 2,479	-1,594	- 5,250	- 5,330
Mach	3,709	4,186	- 997	- 2,565	1,603	4,314	3,223
Trans	1,275	1,020	- 1,027	590	-1,141	- 893	469
Man	546	548	-10,985	-11,174	-3,295	-13,734	-13,921
Total	8,963	9,694	-11,665	-14,243	2,836	134	- 1,713

Table 29. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	28,103	27,238	25,952	25,153	18,813	26,119
RawM	23,964	27,088	28,255	32,344	31,940	36,561	47,118	43,930
Fuels	9,220	9,455	13,915	16,987	14,270	17,421	11,495	11,481
Chem	8,044	8,092	14,808	13,066	14,897	13,145	16,417	12,633
Mach	7,849	8,858	8,649	13,611	9,762	15,362	12,288	14,658
Trans	5,781	4,626	7,118	8,817	5,697	7,057	8,080	7,253
Man	35,061	35,187	57,131	57,889	57,337	58,097	48,231	47,799
Total	111,323	113,074	157,983	169,956	159,858	172,799	162,445	163,873

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,531	- 798	- 8,424	- 6,339	7,305	- 1,984	166
RawM	4,088	4,621	14,774	10,557	- 3,188	15,674	11,989
Fuels	3,072	3,150	- 5,492	- 5,926	- 14	- 2,434	- 2,789
Chem	- 1,741	- 1,752	3,350	3,271	- 3,784	- 2,175	- 2,264
Mach	4,962	5,600	- 1,323	- 3,074	2,369	6,008	4,895
Trans	1,699	1,359	- 737	1,023	- 827	134	1,555
Man	757	760	- 9,657	- 9,866	- 432	- 9,332	- 9,538
Total	11,305	12,941	- 7,510	-10,354	1,427	5,889	4,014

Table 30. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	29,676	28,585	27,404	26,396	30,467	34,441
RawM	23,964	27,088	29,202	34,342	33,010	38,820	46,293	45,790
Fuels	9,220	9,455	15,109	19,196	15,495	19,685	9,228	8,212
Chem	8,044	8,092	16,729	14,397	16,831	14,484	16,803	13,886
Mach	7,849	8,858	8,819	15,196	9,953	17,151	13,023	15,277
Trans	5,781	4,626	7,421	9,594	5,939	7,678	10,723	11,078
Man	35,061	35,187	62,994	63,996	63,220	64,227	54,528	58,818
Total	111,323	113,074	169,953	185,309	171,855	188,445	181,068	187,502

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,091	- 1,008	1,882	4,070	3,973	4,764	7,036
RawM	5,140	5,810	11,950	7,472	- 503	16,587	12,779
Fuels	4,086	4,190	- 9,967	-10,456	- 1,016	- 6,897	- 7,283
Chem	- 2,331	- 2,346	2,405	2,318	- 2,917	- 2,843	- 2,945
Mach	6,377	7,197	- 2,172	- 4,127	2,253	6,457	5,323
Trans	2,173	1,739	1,128	3,044	354	3,656	5,138
Man	1,002	1,006	- 9,468	- 9,698	4,289	- 4,176	- 4,402
Total	15,356	16,590	- 4,241	- 7,377	6,433	17,548	15,646

Table 31. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	31,337	29,997	28,938	27,701	23,483	31,217
RawM	23,964	27,088	30,180	36,466	34,115	41,221	52,436	49,288
Fuels	9,220	9,455	16,406	21,691	16,824	22,245	10,311	8,295
Chem	8,044	8,092	18,901	15,865	19,016	15,961	16,654	14,836
Mach	7,849	8,858	8,991	16,965	10,148	19,147	12,648	15,779
Trans	5,781	4,626	7,736	10,439	6,191	8,355	8,324	8,792
Man	35,061	35,187	69,455	70,749	69,705	71,004	63,358	63,556
Total	111,323	113,074	183,010	202,175	184,941	205,636	187,216	191,763

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,339	- 1,237	- 6,514	- 4,218	7,733	- 120	2,278
RawM	6,285	7,105	15,970	11,215	- 3,148	19,107	15,172
Fuels	5,285	5,420	-11,380	-11,934	- 2,016	- 8,111	- 8,529
Chem	- 3,036	- 3,054	789	693	- 1,818	- 4,005	- 4,180
Mach	7,973	8,999	- 4,317	- 6,499	3,130	6,787	5,630
Trans	2,703	2,163	- 2,115	- 30	467	1,055	2,600
Man	1,293	1,298	- 7,391	- 7,645	197	- 5,899	- 6,149
Total	19,165	20,695	-14,959	-18,419	4,546	8,752	6,821

Table 32. The Effects of the EEC on her Members' Imports from Czechoslovakia: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	21,404	19,765	33,090	31,478	30,557	29,069	32,590	37,281
RawM	23,964	27,088	31,191	38,718	35,258	43,767	46,953	45,052
Fuels	9,220	9,455	17,813	24,512	18,268	25,137	12,174	9,800
Chem	8,044	8,092	21,355	17,482	21,484	17,587	14,090	16,280
Mach	7,849	8,858	9,168	18,940	10,347	21,376	13,706	16,009
Trans	5,781	4,626	8,065	11,359	6,455	9,091	5,221	5,564
Man	35,061	35,187	76,583	78,214	76,859	78,495	71,876	72,325
Total	111,323	113,074	197,269	220,705	199,231	224,525	196,613	202,311

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,611	- 1,488	1,111	3,521	4,690	4,190	6,723
RawM	7,527	8,508	8,234	3,185	- 1,901	13,860	9,793
Fuels	6,698	6,869	-12,337	-12,962	- 2,374	- 8,013	-8,468
Chem	- 3,873	- 3,896	- 3,391	- 3,497	2,189	- 5,075	-5,204
Mach	9,772	11,028	- 5,234	- 7,670	2,302	6,840	5,661
Trans	3,294	2,636	- 6,138	- 3,869	342	- 2,501	- 891
Man	1,630	1,636	- 6,337	- 6,619	448	- 4,258	-4,534
Total	23,436	25,294	-24,092	-27,912	5,697	5,041	3,079

Table 33. The Effects of the EEC on her Members' Imports from Hungary: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	51,383	51,062	43,750	43,476	38,950	37,869
RawM	9,078	7,547	9,382	9,639	7,800	8,013	8,525	11,329
Fuels	2,251	2,314	2,444	2,543	2,512	2,615	2,303	2,256
Chem	1,864	1,456	2,105	2,053	1,645	1,604	1,182	1,615
Mach	1,751	1,703	1,785	1,954	1,736	1,901	2,020	1,898
Trans	401	300	418	436	313	326	228	225
Man	9,163	8,292	10,103	10,129	9,142	9,166	8,488	7,531
Total	73,167	63,044	77,622	77,820	66,901	67,105	61,699	62,723

	4-3	6-5	7-4	7-6	8-7	8-3	8-5	
Food	-	321	-	273	-	1,081	-	5,881
RawM	-	256	-	213	-	2,803	-	3,528
Fuels	-	99	-	102	-	47	-	256
Chem	-	52	-	40	-	432	-	30
Mach	-	169	-	164	-	122	-	161
Trans	-	18	-	13	-	3	-	88
Man	-	26	-	24	-	957	-	1,611
Total	-	197	-	204	-	1,023	-	4,178

Table 34. The Effects of the EEC on her Members' Imports from Hungary: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	54,259	53,583	46,198	45,622	45,001	46,271
RawM	9,078	7,547	9,696	10,234	8,061	8,509	13,359	10,791
Fuels	2,251	2,314	2,653	2,874	2,728	2,954	3,188	2,797
Chem	1,864	1,456	2,379	2,263	1,858	1,768	942	1,485
Mach	1,751	1,703	1,820	2,182	1,770	2,122	2,296	2,178
Trans	401	300	435	474	326	355	190	204
Man	9,163	8,292	11,139	11,198	10,080	10,133	9,218	9,765
Total	73,167	63,044	82,384	82,810	71,025	71,467	74,796	73,491

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 676	- 575	- 7,981	- 21	669	- 7,988	72
RawM	538	447	3,124	4,850	- 2,568	1,094	2,729
Fuels	220	226	313	233	- 391	143	68
Chem	- 116	- 90	- 1,320	- 825	542	- 894	- 373
Mach	361	352	113	173	- 118	357	407
Trans	38	29	- 284	- 165	13	- 231	- 122
Man	58	53	- 1,980	- 915	546	- 1,374	- 315
Total	425	441	- 8,014	3,328	- 1,305	- 8,893	2,465

Table 35. The Effects of the EEC on her Members' Imports from Hungary: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	57,295	56,230	48,784	47,876	39,841	43,337
RawM	9,078	7,547	10,021	10,867	8,331	9,035	14,218	14,808
Fuels	2,251	2,314	2,881	3,247	2,962	3,339	3,133	3,026
Chem	1,864	1,456	2,688	2,493	2,100	1,948	1,395	1,879
Mach	1,751	1,703	1,856	2,436	1,805	2,370	3,794	3,677
Trans	401	300	454	516	340	387	201	215
Man	9,163	8,292	12,282	12,379	11,114	11,202	11,488	12,615
Total	73,167	63,044	87,479	88,171	75,439	76,159	74,072	79,557

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,065	- 907	-16,389	- 8,035	3,495	-13,958	- 5,447
RawM	846	703	3,350	5,183	589	4,786	6,476
Fuels	366	376	- 114	- 205	- 107	144	63
Chem	- 194	- 151	- 1,098	- 552	483	- 809	- 221
Mach	580	564	1,357	1,424	- 117	1,820	1,871
Trans	62	46	- 315	- 186	13	- 239	- 125
Man	97	87	- 890	285	1,126	332	1,500
Total	691	719	-14,099	- 2,086	5,484	- 7,922	4,117

Table 36. The Effects of the EEC on Her Members' Imports from Hungary: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	60,502	59,008	51,514	50,242	68,772	77,120
RawM	9,078	7,547	10,357	11,539	8,610	9,593	20,098	18,128
Fuels	2,251	2,314	3,128	3,670	3,216	3,733	4,758	4,677
Chem	1,864	1,456	3,037	2,747	2,372	2,146	2,712	2,669
Mach	1,751	1,703	1,892	2,720	1,840	2,645	2,928	3,066
Trans	401	300	473	562	354	421	435	420
Man	9,163	8,292	13,541	13,684	12,254	12,384	19,691	18,811
Total	73,167	63,044	92,933	93,933	80,165	81,207	119,397	124,891

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,493	- 1,271	9,763	18,529	8,347	16,617	25,605
RawM	1,181	982	8,559	10,504	- 1,970	7,770	9,517
Fuels	541	556	1,088	985	- 81	1,548	1,460
Chem	- 289	- 226	- 35	565	- 43	- 368	296
Mach	827	805	208	282	137	1,173	1,225
Trans	88	66	- 126	14	- 15	- 53	65
Man	142	129	6,006	7,306	- 880	5,269	6,556
Total	999	1,041	25,464	38,189	5,493	31,957	44,725

Table 37. The Effects of the EEC on her Members' Imports from Hungary: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	63,889	61,923	54,397	52,724	48,941	55,798
RawM	9,078	7,547	10,703	12,252	8,899	10,186	19,827	19,864
Fuels	2,251	2,314	3,397	4,147	3,492	4,263	3,895	3,119
Chem	1,864	1,456	3,431	3,027	2,680	2,365	2,689	3,064
Mach	1,751	1,703	1,929	3,036	1,877	2,953	2,244	3,600
Trans	401	300	493	611	369	458	108	108
Man	9,163	8,292	14,931	15,129	13,512	13,691	20,791	26,486
Total	73,167	63,044	98,776	100,128	85,229	86,643	98,497	112,039

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,965	- 1,673	-12,981	- 3,782	6,856	- 8,091	1,400
RawM	1,548	1,287	7,574	9,640	36	9,160	10,964
Fuels	750	771	- 252	- 368	-	- 278	- 373
Chem	- 403	- 315	- 338	323	374	- 367	383
Mach	1,106	1,076	- 791	- 709	1,355	1,670	1,722
Trans	117	88	- 503	- 350	0	- 385	- 261
Man	197	179	5,662	7,100	5,694	11,554	12,973
Total	1,352	1,413	- 1,631	11,853	13,541	13,262	26,809

Table 38. The Effects of the EEC on her Members' Imports from Hungary: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	67,465	64,984	57,442	55,330	75,175	92,774
RawM	9,078	7,547	11,062	13,009	9,197	10,816	14,552	17,437
Fuels	2,251	2,314	3,688	4,686	3,792	4,818	4,268	3,056
Chem	1,864	1,456	3,876	3,678	3,028	2,872	2,476	3,409
Mach	1,751	1,703	1,966	3,389	1,912	3,297	3,480	3,126
Trans	401	300	514	665	385	498	413	436
Man	9,163	8,292	16,463	16,725	14,898	15,135	28,668	30,844
Total	73,167	63,044	105,038	107,139	90,658	92,768	129,035	151,082

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 2,481	- 2,112	10,191	19,845	17,598	25,308	35,331
RawM	1,947	1,618	1,542	3,735	2,884	6,374	8,239
Fuels	997	1,025	- 418	- 549	- 1,212	- 632	- 736
Chem	- 198	- 156	- 1,201	- 395	932	- 467	380
Mach	1,423	1,384	91	183	- 354	1,159	1,213
Trans	150	112	- 251	- 85	22	- 78	50
Man	262	237	11,943	13,533	2,175	14,380	15,945
Total	2,101	2,110	21,896	36,266	22,046	46,043	60,423

Table 39. The Effects of the EEC on her Members' Imports from Hungary: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	71,241	68,195	60,657	99,845	86,527	107,770
RawM	9,078	7,547	11,432	13,813	9,505	17,397	21,024	21,915
Fuels	2,251	2,314	4,005	5,295	4,117	9,423	4,930	3,626
Chem	1,864	1,456	4,380	3,676	3,421	2,872	3,823	4,055
Mach	1,751	1,703	2,005	3,783	1,951	2,680	6,015	5,282
Trans	401	300	536	724	402	542	595	622
Man	9,163	8,292	18,151	18,490	16,426	16,732	32,132	35,028
Total	73,167	63,044	111,754	113,979	96,483	150,494	155,048	178,298

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 3,046	39,187	18,332	-13,317	21,242	36,528	47,112
RawM	2,381	7,891	7,210	3,626	890	10,482	12,409
Fuels	1,290	5,305	- 365	- 4,493	- 1,304	- 379	- 491
Chem	- 703	- 549	146	950	231	- 325	633
Mach	1,777	1,729	2,231	2,334	- 733	3,276	3,330
Trans	187	140	- 128	52	26	85	219
Man	338	305	13,642	15,399	2,895	16,876	18,601
Total	2,225	54,011	41,068	4,554	23,249	66,543	81,814

Table 40. The Effects of the EEC on her Members' Imports from Hungary: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	48,659	41,430	75,226	71,562	64,051	60,931	91,627	115,078
RawM	9,078	7,547	11,815	14,667	9,823	12,194	21,722	22,384
Fuels	2,251	2,314	4,349	5,984	4,471	6,152	6,478	5,052
Chem	1,864	1,456	4,948	4,051	3,865	3,164	5,509	5,571
Mach	1,751	1,703	2,045	4,225	1,989	4,110	5,687	5,181
Trans	401	300	559	787	419	590	338	409
Man	9,163	8,292	20,014	20,440	18,112	18,498	28,042	31,216
Total	73,167	63,044	118,960	121,719	102,733	105,642	159,407	184,891

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 3,684	- 3,119	20,064	30,695	23,450	39,851	51,026
RawM	2,851	2,370	7,055	9,528	661	10,568	12,560
Fuels	1,635	1,681	494	326	- 1,426	702	580
Chem	- 897	- 701	1,458	2,344	61	622	1,705
Mach	2,180	2,120	1,462	1,577	- 506	3,135	3,191
Trans	228	171	- 449	- 252	70	- 150	- 10
Man	426	385	7,601	9,544	3,173	11,201	13,103
Total	2,759	2,908	37,687	53,765	25,483	65,930	82,157

Table 41. The Effects of the EEC on her Members' Imports from Romania: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	8,042	7,992	14,438	14,348	20,314	19,741
RawM	20,138	23,255	20,812	21,382	24,034	24,892	27,845	20,706
Fuels	24,561	22,729	26,668	27,753	24,679	25,684	24,862	24,735
Chem	739	819	834	814	926	903	1,091	1,399
Mach	0	17	0	0	17	18	0	0
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	4,116	4,126	5,276	5,290	6,874	9,741
Total	56,787	65,279	60,474	62,069	69,372	70,937	80,988	76,322

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	50	12,322	5,966	-	11,698	5,302
RawM	569	658	6,463	3,153	-	106	-
Fuels	1,085	1,004	-	821	-	1,933	55
Chem	-	20	277	188	307	564	472
Mach	0	1	0	18	0	0	17
Trans	0	0	0	0	0	0	0
Man	10	13	2,747	1,583	2,866	5,624	4,464
Total	1,595	1,565	18,918	10,051	-	15,847	6,949

Table 42. The Effects of the EEC on her Members' Imports from Romania: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	8,492	8,386	15,246	15,056	34,806	32,092
RawM	20,138	23,255	21,509	22,703	24,838	26,217	49,332	47,161
Fuels	24,561	22,729	28,957	31,361	26,797	29,023	30,580	29,242
Cham	739	819	943	885	1,046	995	607	671
Mach	0	17	0	0	17	21	0	0
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	4,538	4,562	5,817	5,848	15,850	19,955
Total	56,787	65,279	64,440	67,899	73,765	77,162	131,177	129,121

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	105	-	190	-	2,714	16,845
RawM	1,194	1,379	26,419	19,750	-	23,599	22,322
Fuels	2,404	2,225	26,629	23,114	-	25,651	2,444
Chem	-	58	-	780	-	284	-
Mach	0	51	-	388	63	-	375
Trans	0	3	0	21	0	0	17
Man	23	0	0	0	0	0	0
Total	3,458	3,397	11,288	10,002	4,104	15,416	14,137
					-	64,680	55,355

Table 43. The Effects of the EEC on her Members' Imports from Romania: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	8,967	8,801	16,099	15,800	33,647	31,505
RawM	20,138	23,255	22,230	24,107	25,671	27,838	43,558	42,121
Fuels	24,561	22,729	31,442	35,439	29,098	32,796	35,347	34,126
Chem	739	819	1,065	988	1,182	1,096	2,011	1,265
Mach	0	17	0	0	18	23	183	150
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	5,003	5,043	6,414	6,465	6,847	6,259
Total	56,787	65,279	68,710	74,379	78,484	84,021	121,595	115,426

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 166	- 299	24,846	17,846	- 2,142	22,537	15,405
RawM	1,876	2,167	19,450	15,719	- 1,437	19,890	16,449
Fuels	3,996	3,698	- 91	2,551	- 1,221	2,683	5,027
Chem	- 77	- 85	1,022	914	- 746	199	82
Mach	0	5	183	160	- 33	159	131
Trans	0	0	0	0	0	0	0
Man	39	50	1,804	382	- 588	1,255	- 155
Total	5,668	5,536	47,215	37,574	- 6,169	46,715	36,941

Table 44. The Effects of the EEC on her Members' Imports from Romania: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	9,469	9,235	17,000	16,580	35,767	37,692
RawM	20,138	23,255	22,975	25,597	26,531	29,559	60,880	57,320
Fuels	24,561	22,729	34,139	40,046	31,593	37,060	43,390	40,384
Chem	739	819	1,204	1,089	1,335	1,208	4,215	2,337
Mach	0	17	0	0	18	26	0	0
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	5,517	5,575	7,072	7,147	15,503	18,196
Total	56,787	65,279	73,305	81,544	83,553	91,583	159,757	155,929

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 233	- 419	26,531	19,186	1,924	28,222	20,691
RawM	2,621	3,027	35,283	31,321	- 3,560	34,344	30,788
Fuels	5,907	5,466	3,343	6,330	- 3,006	6,244	8,790
Chem	- 114	- 127	3,126	3,007	- 1,878	1,132	1,001
Mach	0	8	0	- 26	0	0	- 18
Trans	0	0	0	0	0	0	0
Man	58	74	9,928	8,355	2,692	12,679	11,123
Total	8,239	8,029	78,212	68,174	- 3,828	82,623	72,375

Table 45. The Effects of the EEC on her Members' Imports from Romania: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	9,999	9,692	17,952	17,399	36,068	38,125
RawM	20,138	23,255	23,744	27,180	27,420	31,387	64,396	61,130
Fuels	24,561	22,729	37,069	45,253	34,305	41,878	33,510	29,655
Chem	739	819	1,360	1,200	1,509	1,331	2,340	1,585
Mach	0	17	0	0	18	29	145	109
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	6,082	6,163	7,798	7,901	7,311	7,889
Total	56,787	65,279	78,257	89,490	89,004	99,929	143,772	138,493

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	552	26,376	18,668	2,056	28,125	20,172
RawM	3,435	3,967	37,216	33,009	- 3,266	37,385	33,709
Fuels	8,183	7,573	-11,742	- 8,367	- 3,855	- 7,414	- 4,650
Chem	- 160	177	1,139	1,008	- 755	224	75
Mach	0	10	145	115	- 36	109	90
Trans	0	0	0	0	0	0	0
Man	80	103	1,147	- 590	577	1,806	90
Total	11,232	10,924	54,282	43,843	- 5,279	60,235	49,488

Table 46. The Effects of the EEC on her Members' Imports from Romania: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	10,559	10,171	18,957	18,259	47,590	55,253
RawM	20,138	23,255	24,540	28,859	28,338	33,326	69,278	67,686
Fuels	24,561	22,729	40,250	51,136	37,248	47,322	18,765	24,274
Chem	739	819	1,536	1,322	1,705	1,467	6,859	4,890
Mach	0	17	0	0	19	32	0	0
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	6,707	6,813	8,598	8,735	8,808	12,163
Total	56,787	65,279	83,594	98,303	94,867	109,144	151,302	164,266

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 388	- 697	37,418	29,330	7,662	44,693	36,295
RawM	4,319	4,988	40,419	35,952	- 1,592	43,145	39,347
Fuels	10,885	10,073	-32,370	-28,557	5,508	-15,976	-12,974
Chem	- 214	- 237	5,536	5,391	- 1,969	3,353	3,184
Mach	0	13	0	- 32	0	0	- 19
Trans	0	0	0	0	0	0	0
Man	106	136	1,994	73	3,354	5,455	3,564
Total	14,709	14,277	52,998	42,157	12,963	80,671	69,398

Table 47. The Effects of the EEC on her Members' Imports from Romania: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	11,119	10,673	20,018	19,162	44,815	58,478
RawM	20,138	23,255	25,361	30,643	29,287	35,387	80,850	82,428
Fuels	24,561	22,729	43,703	57,784	40,444	53,475	47,566	38,998
Chem	739	819	1,736	1,457	1,926	1,617	7,746	5,079
Mach	0	17	0	0	19	36	1,249	1,240
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	7,395	7,532	9,480	9,657	19,701	21,993
Total	56,787	65,279	89,317	108,092	101,176	119,335	201,930	208,216

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	-	34,141	25,652	13,662	47,358	38,459
RawM	5,282	6,099	50,206	45,463	1,577	57,066	53,140
Fuels	14,080	13,030	-10,217	- 5,908	- 8,568	- 4,705	- 1,446
Chem	-	309	6,288	6,129	- 2,667	3,342	3,152
Mach	0	17	1,249	1,213	- 9	1,240	1,220
Trans	0	0	0	0	0	0	0
Man	137	176	12,168	10,044	2,291	14,597	12,512
Total	18,775	18,158	93,837	82,594	6,285	118,898	107,039

Table 48. The Effects of the EEC on her Members' Imports from Romania: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	7,616	13,672	11,774	11,200	21,138	20,108	77,649	88,877
RawM	20,138	23,255	26,211	32,536	30,268	37,573	85,026	78,140
Fuels	24,561	22,729	45,454	65,297	43,915	60,428	40,641	36,000
Chem	739	819	1,961	1,606	2,176	1,781	13,305	10,228
Mach	0	17	0	0	19	41	1,904	1,508
Trans	0	0	0	0	0	0	0	0
Man	3,733	4,785	8,153	8,327	10,453	10,675	23,397	24,065
Total	56,787	65,279	95,556	118,969	107,972	130,608	241,924	238,818

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 573	- 1,029	66,448	57,540	11,227	77,102	67,738
RawM	6,325	7,304	52,489	47,453	- 6,886	51,928	47,871
Fuels	17,843	16,512	-24,656	-19,787	- 4,641	-11,454	- 7,915
Chem	- 355	- 394	11,699	11,523	- 3,077	8,266	8,051
Mach	0	21	1,904	1,863	- 396	1,508	1,488
Trans	0	0	0	0	0	0	0
Man	173	222	15,069	12,721	667	15,911	13,611
Total	23,413	22,636	122,954	111,315	- 3,106	143,261	130,845

Table 49. The Effects of the EEC on her Members' Imports from the GDR: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	3,306	3,285	3,962	3,937	6,416	5,746
RawM	2,216	3,438	2,290	2,352	3,553	3,650	7,680	8,412
Fuels	671	773	728	758	839	873	1,027	868
Chem	11,642	10,080	13,153	12,828	11,389	11,107	10,229	10,241
Mach	6,962	7,061	7,098	7,772	7,199	7,883	8,969	8,083
Trans	800	804	834	870	839	875	842	1,112
Man	15,663	18,990	17,270	17,315	20,939	20,994	23,864	22,202
Total	41,085	44,901	44,680	45,183	48,722	49,323	59,030	56,664

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	20	3,130	2,478	-	2,439	1,783
RawM	62	97	5,327	4,029	731	6,121	4,858
Fuels	29	34	269	153	159	139	28
Chem	-	281	-	878	11	-	1,148
Mach	673	683	1,196	1,085	-	984	883
Trans	36	36	27	33	269	278	272
Man	45	55	6,549	2,870	-	4,931	1,262
Total	502	600	13,847	9,710	-	11,983	7,941

Table 50. The Effects of the EEC on her Members' Imports from the GDR: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	3,491	3,447	4,183	4,131	2,576	2,174
RawM	2,216	3,438	2,366	2,652	3,672	4,115	2,029	2,138
Fuels	671	773	791	856	911	987	2,372	1,929
Chem	11,642	10,080	14,861	14,135	12,867	12,239	8,855	9,016
Mach	6,962	7,061	7,237	8,676	7,341	8,800	11,820	10,318
Trans	800	804	869	947	874	953	1,006	1,054
Man	15,663	18,990	19,041	19,141	23,087	23,208	22,510	23,167
Total	41,085	44,901	48,659	49,858	52,938	54,437	51,171	49,796

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	43	-	870	-	402	- 2,009
RawM	285	443	-	623	-	108	- 1,534
Fuels	65	75	1,516	1,385	-	443	1,017
Chem	-	725	-	5,280	-	160	- 3,851
Mach	1,439	1,459	3,143	3,019	-	1,502	2,976
Trans	77	78	59	53	47	184	179
Man	100	121	3,368	-	698	4,125	79
Total	1,199	1,498	1,312	- 3,265	- 1,375	1,136	- 3,142

Table 51. The Effects of the EEC on her Members' Imports from the GDR: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	3,686	3,618	4,417	4,335	1,341	1,066
RawM	2,216	3,438	2,446	2,652	3,795	4,115	2,814	3,083
Fuels	671	773	859	968	990	1,115	2,158	1,770
Chem	11,642	10,080	16,790	15,575	14,538	13,486	8,459	8,425
Mach	6,962	7,061	7,379	9,686	7,485	9,825	12,460	11,271
Trans	800	804	906	1,030	952	1,037	484	550
Man	15,663	18,990	20,994	21,160	25,455	25,656	21,483	21,113
Total	41,085	44,901	53,062	54,963	57,593	59,573	49,201	47,278

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	82	-	2,994	-	2,620	-
RawM	206	320	161	-	268	636	-
Fuels	109	125	1,190	1,042	-	910	779
Chem	-	1,051	-	5,026	-	8,365	-
Mach	2,307	2,340	2,773	2,635	-	3,891	3,785
Trans	124	125	-	552	65	-	362
Man	166	201	322	-	370	118	-
Total	1,630	1,979	-	-10,371	-	5,784	-10,315

Table 52. The Effects of the EEC on her Members' Imports from the GDR: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	3,893	3,796	4,665	4,550	6,011	5,065
RawM	2,216	3,438	2,528	2,816	3,922	4,370	3,987	4,259
Fuels	671	773	932	1,094	1,074	1,260	3,078	2,609
Chem	11,642	10,080	18,969	17,162	16,425	14,860	9,189	9,535
Mach	6,962	7,061	7,524	10,814	7,631	10,969	11,270	10,985
Trans	800	804	944	1,121	950	1,128	2,022	2,071
Man	15,663	18,990	23,148	23,392	28,066	28,362	29,471	27,524
Total	41,085	44,901	57,941	60,199	62,737	65,502	65,031	62,048

	4-3	6-5	7-4	7-6	8-7	8-3	8-5	-
Food	-	96	2,214	1,461	-	1,171	399	
RawM	288	447	1,170	383	271	1,730	336	
Fuels	161	185	1,984	1,817	469	1,676	1,534	
Chem	-	1,564	-	5,671	345	-	6,890	
Mach	3,290	3,337	455	301	285	3,460	3,353	
Trans	176	177	900	893	48	1,126	1,120	
Man	244	296	6,079	1,109	-	4,375	-	542
Total	2,258	2,764	4,831	470	-	4,106	-	689

Table 53. The Effects of the EEC on her Members' Imports from the GDR: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	4,111	3,984	4,926	4,774	9,079	9,040
RawM	2,216	3,438	2,612	2,990	4,053	4,640	4,174	6,442
Fuels	671	773	1,012	1,236	1,167	1,424	3,645	3,228
Chem	11,642	10,080	21,431	18,911	18,557	16,374	10,826	11,213
Mach	6,962	7,061	7,672	12,073	7,781	12,245	10,717	10,789
Trans	800	804	985	1,220	991	1,227	3,480	3,435
Man	15,663	18,990	25,522	25,861	30,945	31,355	31,463	26,655
Total	41,085	44,901	63,348	66,277	68,423	72,044	73,389	70,802

	4-3	6-5	7-4	7-6	8-7	8-3	8-5		
Food	-	126	-	151	5,095	4,305	-	39	4,113
RawM	378	378	586	586	1,183	-	466	2,267	3,829
Fuels	223	223	257	257	2,409	2,221	-	417	2,215
Chem	-	2,520	-	2,182	-	8,084	-	386	-10,218
Mach	4,401	4,401	4,464	4,464	-	1,355	-	71	3,116
Trans	235	235	236	236	2,260	2,253	-	45	2,443
Man	338	338	410	410	5,602	108	-	4,808	1,132
Total	2,929	3,621	7,111	1,345	-	2,587	-	7,453	2,378

Table 54. The Effects of the EEC on her Members' Imports from the GDR: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	4,341	4,181	5,202	5,010	12,326	10,664
RawM	2,216	3,438	2,700	3,175	4,189	4,927	7,292	7,810
Fuels	671	773	1,099	1,397	1,267	1,610	4,260	3,688
Chem	11,642	10,080	24,213	20,838	20,965	18,043	11,374	11,479
Mach	6,962	7,061	7,822	13,479	7,934	13,671	14,125	13,840
Trans	800	804	1,026	1,327	1,033	1,336	4,081	4,183
Man	15,663	18,990	28,141	28,589	34,120	34,663	35,258	31,265
Total	41,085	44,901	69,345	72,988	74,713	79,262	88,719	82,929

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	159	-	191	-	1,662	5,461
RawM	475	737	8,144	7,315	-	6,322	3,620
Fuels	297	342	4,116	2,365	517	5,109	2,420
Chem	-	3,375	2,863	2,650	-	2,588	-
Mach	5,656	-	-	-	104	-12,734	9,486
Trans	300	5,737	646	454	-	6,017	5,905
Man	447	302	2,754	2,745	101	3,156	3,149
		543	6,668	594	-	3,123	-
Total	3,643	4,549	15,730	9,456	-	13,583	8,215

Table 55. The Effects of the EEC on her Members' Imports from the GDR: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	4,584	4,388	5,493	5,258	27,043	26,452
RawM	2,216	3,438	2,790	3,372	4,330	5,231	7,630	6,962
Fuels	671	773	1,193	1,578	1,376	1,819	3,615	9,082
Chem	11,642	10,080	27,356	22,961	23,687	19,881	11,334	11,360
Mach	6,962	7,061	7,975	15,048	8,089	15,263	14,448	14,845
Trans	800	804	1,070	1,444	1,077	1,453	4,224	4,141
Man	15,663	18,990	31,028	31,606	37,620	38,321	36,177	34,768
Total	41,085	44,901	75,999	80,399	81,674	87,229	104,474	101,610

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	195	-	234	22,655	21,784	20,958
RawM	581	901	4,258	2,399	-	4,171	2,631
Fuels	384	443	2,036	1,796	-	1,888	1,705
Chem	-	3,805	-11,627	- 8,547	-	-15,996	-12,327
Mach	7,072	7,173	-	814	396	6,869	6,755
Trans	374	376	2,779	2,770	-	3,070	3,063
Man	577	700	4,570	- 2,144	- 1,409	3,739	- 2,852
Total	4,399	5,555	24,074	17,244	- 2,864	25,610	19,935

Table 56. The Effects of the EEC on her Members' Imports from the GDR: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	3,131	3,751	4,840	4,604	5,800	5,518	34,148	33,709
RawM	2,216	3,438	2,884	3,580	4,475	5,555	13,476	12,973
Fuels	671	773	1,296	1,783	1,494	2,055	7,253	6,271
Chem	11,642	10,080	30,907	25,301	26,762	21,908	15,773	14,712
Mach	6,962	7,061	8,132	16,800	8,248	17,039	16,157	15,340
Trans	800	804	1,116	1,572	1,123	1,581	2,496	2,745
Man	15,663	18,990	34,212	34,941	41,481	42,364	33,029	34,383
Total	41,085	44,901	83,389	88,583	89,384	96,023	122,336	120,133

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	235	-	282	29,544	28,630	27,908
RawM	696	1,079	9,896	7,921	-	10,088	8,497
Fuels	487	561	5,469	5,197	-	4,974	4,776
Chem	-	5,605	-	4,853	-	-16,195	-12,050
Mach	8,667	8,791	-	882	-	7,207	7,091
Trans	455	458	924	915	248	1,628	1,621
Man	728	883	-	1,911	1,353	170	- 7,098
Total	5,193	6,638	33,752	26,312	- 2,203	36,743	30,748

Table 57. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	21,406	21,272	22,880	22,737	23,346	23,473
RawM	2,735	4,134	2,826	2,904	4,272	4,389	9,506	10,781
Fuels	228	191	247	257	208	216	318	328
Chem	903	856	1,020	995	967	943	968	1,089
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	2,958	2,966	2,614	2,620	3,157	3,966
Total	26,820	29,220	28,458	28,395	30,943	30,908	37,297	39,637

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	133	-	143	-	126	592
RawM	77	116	2,074	5,116	1,274	2,066	6,508
Fuels	10	8	6,602	101	9	7,954	119
Chem	-	25	-	24	120	68	121
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	7	6	191	536	808	1,007	1,351
Total	-	63	-	34	2,340	11,178	8,693

Table 58. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	22,604	22,322	24,161	23,860	27,751	29,240
RawM	2,735	4,134	2,921	3,083	4,415	4,660	15,627	17,504
Fuels	228	191	268	291	225	244	842	876
Chem	903	856	1,152	1,096	1,093	1,040	1,038	962
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	3,261	3,278	2,882	2,897	2,469	2,475
Total	26,820	29,220	30,208	30,072	32,778	32,702	47,730	51,057

	4-3	6-5	7-4	7-6	8-7	8-3	8-5		
Food	-	281	-	301	5,429	3,891	1,488	5,078	
RawM	162	245	12,544	10,967	1,876	14,582	13,088	13,088	
Fuels	22	18	551	598	33	607	650	650	
Chem	-	56	-	57	-	190	-	131	
Mach	0	0	0	0	0	0	0	0	
Trans	0	0	0	0	0	0	0	0	
Man	17	15	-	809	-	427	5	407	
Total	-	136	-	75	17,658	15,027	3,326	20,848	18,278

Table 59. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-62.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	23,869	23,425	25,513	25,038	31,320	31,308
RawM	2,735	4,134	3,019	3,274	4,563	4,948	11,672	14,432
Fuels	228	191	291	328	245	276	0	0
Chem	903	856	1,302	1,208	1,235	1,146	1,066	964
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	3,596	3,624	3,177	3,203	4,233	4,121
Total	26,820	29,220	32,078	31,861	34,735	34,613	48,282	50,825

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	-	443	-	474	-	12	5,794
RawM	254	385	7,894	6,281	-	2,759	9,868
Fuels	37	31	8,398	6,723	0	11,412	-
Chem	-	89	-	276	-	291	245
Mach	0	0	-	-	-	338	-
Trans	0	0	0	-	0	0	0
Man	28	25	599	1,020	-	524	943
Total	-	217	-	122	13,699	2,542	16,089

Table 60. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	25,204	24,582	26,941	26,275	38,665	42,149
RawM	2,735	4,134	3,120	3,476	4,716	5,254	17,195	18,750
Fuels	228	191	316	371	266	312	1,027	1,660
Chem	903	856	1,471	1,331	1,395	1,262	1,252	1,319
Mach	0	0	0	0	0	0	378	412
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	3,965	4,007	3,503	5,922	6,359	5,400
Total	26,820	29,220	34,078	33,769	36,823	39,028	64,878	69,090

	4-3	6-5	7-4	7-6	8-7	8-3	8-5	
Food	-	622	-	665	14,083	12,389	3,483	15,207
RawM	356	538	13,718	11,940	1,554	15,629	1,554	14,033
Fuels	54	46	655	714	32	743	793	793
Chem	-	140	-	132	-	152	-	76
Mach	0	0	378	378	33	412	412	412
Trans	0	0	0	0	0	0	0	0
Man	41	2,418	2,352	437	-	959	1,434	1,896
Total	-	309	2,204	31,109	25,850	4,211	35,011	32,266

Table 61. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	26,615	25,796	28,449	27,573	27,937	30,554
RawM	2,735	4,134	3,224	3,691	4,874	5,579	12,096	12,579
Fuels	228	191	344	420	289	353	466	469
Chem	903	856	1,662	1,466	1,576	1,391	965	1,307
Mach	0	0	0	0	0	0	1,158	683
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	4,371	4,429	3,863	3,914	6,338	7,606
Total	26,820	29,220	36,219	35,805	39,053	38,812	48,963	53,198

	4-3	6-5	7-4	7-6	8-7	8-3	8-5		
Food	-	818	-	875	2,140	363	2,616	3,938	2,104
RawM	466	466	705	705	8,405	6,517	482	9,354	7,704
Fuels	75	75	63	63	46	113	2	124	179
Chem	-	195	-	185	-	501	341	-	269
Mach	0	0	1,158	1,158	-	1,158	475	683	683
Trans	0	0	0	0	0	0	0	0	0
Man	57	51	1,908	2,424	1,267	3,234	3,742	3,742	3,742
Total	-	413	-	240	13,158	10,150	4,234	16,978	14,144

Table 62. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	28,105	27,071	30,041	28,936	42,106	50,532
RawM	2,735	4,134	3,332	3,919	5,037	5,924	11,868	13,384
Fuels	228	191	373	474	314	399	290	247
Chem	903	856	1,878	1,616	1,781	1,533	1,009	1,353
Mach	0	0	0	0	0	0	584	584
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	4,820	4,897	4,259	4,327	11,456	15,109
Total	26,820	29,220	38,510	37,979	41,434	41,120	67,314	81,209

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,033	- 1,105	15,034	13,170	8,425	22,426	20,490
RawM	586	886	7,948	5,943	1,515	10,051	8,346
Fuels	101	84	- 184	- 108	- 43	- 126	- 67
Chem	- 261	- 248	- 607	- 524	343	- 525	- 428
Mach	0	0	584	584	0	584	584
Trans	0	0	0	0	0	0	0
Man	76	67	6,559	7,129	3,652	10,288	10,849
Total	- 531	- 313	29,335	26,193	13,894	42,698	39,774

Table 63. The Effects of the EEC on her Members' Imports from Bulgaria: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	20,271	21,667	29,678	28,409	31,723	30,366	50,472	66,190
RawM	2,735	4,134	3,444	4,161	5,206	6,290	15,406	17,074
Fuels	228	191	405	536	341	450	636	306
Chem	903	856	2,121	1,780	2,012	1,689	1,197	1,993
Mach	0	0	0	0	0	0	706	656
Trans	0	0	0	0	0	0	0	0
Man	2,683	2,370	5,315	5,414	4,696	4,784	14,032	16,997
Total	26,820	29,220	40,965	40,303	43,980	43,582	82,451	103,216

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	- 1,268	- 1,356	22,063	20,106	15,717	36,511	34,466
RawM	717	1,084	11,244	9,115	1,667	13,629	11,867
Fuels	130	109	99	185	- 330	- 99	- 35
Chem	- 340	- 323	- 583	- 492	795	- 128	- 19
Mach	0	0	706	706	- 50	656	656
Trans	0	0	0	0	0	0	0
Man	99	87	8,618	9,248	2,964	11,681	12,300
Total	- 662	- 398	42,148	38,869	20,764	62,250	59,235

Table 65. The Effects of the EEC on her Members' Imports from Albania: 1959-60.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	0	0
RawM	937	0	968	994	0	0	227	280
Fuels	0	0	0	0	0	0	0	0
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0	0
Total	937	0	968	994	0	0	227	280

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	0	0	0	0	0
RawM	26	0	-	227	52	-	280
Fuels	0	0	0	0	0	0	0
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0
Total	26	0	-	227	52	-	280

Table 66. The Effects of the EEC on her Members' Imports from Albania: 1959-61.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	0	0
RawM	937	0	1,000	1,056	0	0	569	584
Fuels	0	0	0	0	0	0	0	0
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0	0
Total	937	0	1,000	1,056	0	0	569	584

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	0	0	0	0	0
RawM	55	0	- 486	569	14	- 416	584
Fuels	0	0	0	0	0	0	0
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0
Total	55	0	- 486	569	14	- 416	584

Table 68. The Effects of the EEC on her Members' Imports from Albania: 1959-63.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	613	1,315
RawM	937	0	1,069	1,191	0	0	734	759
Fuels	0	0	0	0	0	0	1,669	956
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0	0
Total	937	0	1,069	1,191	0	0	3,018	3,030

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	613	613	701	1,315	1,315
RawM	122	0	-	734	24	-	759
Fuels	0	0	1,669	1,669	-	956	956
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0
Total	122	0	1,827	3,018	11	1,960	3,030

Table 69. The Effects of the EEC on her Members' Imports from Albania: 1959-64.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	1,015	1,182
RawM	937	0	1,104	1,264	0	0	268	291
Fuels	0	0	0	0	0	0	1,234	858
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0	0
Total	973	0	1,104	1,264	0	0	2,518	2,331

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	1,015	1,015	166	1,182	1,182
RawM	159	0	- 995	268	22	- 813	291
Fuels	0	0	1,234	1,234	- 376	858	858
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	0
Total	159	0	1,253	2,518	- 187	1,226	2,331

Table 70. The Effects of the EEC on her Members' Imports from Albania: 1959-65.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	285	370
RawM	937	0	1,141	1,342	0	0	414	444
Fuels	0	0	0	0	0	0	857	531
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	67	187
Total	937	0	1,141	1,342	0	0	1,624	1,532

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	285	285	84	370	370
RawM	200	0	-	414	29	-	444
Fuels	0	0	857	857	-	531	531
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	67	67	119	187	187
Total	200	0	281	1,624	-	390	1,532

Table 71. The Effects of the EEC on her Members' Imports from Albania: 1959-66.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	449	432
RawM	937	0	1,180	1,431	0	0	587	610
Fuels	0	0	0	0	0	0	263	168
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	619	864
Total	937	0	1,180	1,431	0	0	1,919	2,054

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	449	449	-	432	432
RawM	251	0	-	587	-	-	610
Fuels	0	0	263	263	-	168	168
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	619	619	224	844	844
Total	251	0	488	1,919	134	873	2,054

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Table 72. The Effects of the EEC on her Members' Imports from Albania: 1959-67.

Comm. Group	1	2	3	4	5	6	7	8
Food	0	0	0	0	0	0	477	441
RawM	937	0	1,219	1,513	0	0	820	662
Fuels	0	0	0	0	0	0	1,316	950
Chem	0	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0	0
Man	0	0	0	0	0	0	828	679
Total	937	0	1,219	1,513	0	0	3,444	2,732

	4-3	6-5	7-4	7-6	8-7	8-3	8-5
Food	0	0	477	477	-	441	441
RawM	294	0	-	820	-	-	662
Fuels	0	0	-	1,316	-	950	950
Chem	0	0	0	0	0	0	0
Mach	0	0	0	0	0	0	0
Trans	0	0	0	0	0	0	0
Man	0	0	828	828	-	679	679
Total	294	0	1,930	3,444	-	1,512	2,732

APPENDIX B: DATA PROBLEMSThe General Problem:

The test of the relative share model (presented in Chapter II) requires data on the exports of the communist countries of Eastern Europe for seven commodity groups and in constant prices. To my knowledge, export figures of the communist countries of Eastern Europe to the EEC, listed under the three-digit SITC, were not available from Eastern European sources. Therefore, I have measured the exports of the communist countries to the EEC by means of the EEC's imports from the said countries. Estimates of imports of the OECD countries are registered in the United Nations International Commodity Trade Statistics, Series D. The imports are expressed in quantity and value terms. The value of the imports is listed in current prices, current exchange rates, and includes "cost, insurance and freight" (c.i.f.).

It is customary to reduce all import figures in value terms by 10% to derive an estimate of imports measured "free on board" (f.o.b.). I have not done this because I believe that this rule is too crude and may create substantial error in the data. Not all commodities weigh the same and are of equal value per unit therefore insurance and transportation costs cannot be computed by a fixed percentage of the value.

The quantity of imports is expressed in a large number of different units such as ton, meter, square meter, liter, etc. To

aggregate these quantities, it is necessary to express them in a common unit of account, namely in value terms. Over a period of time, the quantity of the EEC's imports from the communist countries of Eastern Europe steadily increase. This increase cannot be precisely observed if imports are expressed in current prices. Indeed, while the prices of some products sold on the world market increase over the last two decades, the prices of other products decline over the same period. Consequently, imports have to be measured in constant prices to observe the increase in real imports.

To study the increase in real output of a national economy over a period of time, output is measured in constant prices which are the prices of output in a given base year. Nearly every country has price indexes for consumer goods, industrial products and gross national product. For each year, the value of one of the aggregates (consumption, industrial production, gross national income) measured in current prices, is deflated by the appropriate price index to obtain output in constant prices. Whenever a domestic price index for an individual commodity is available, it should be preferred to an aggregate price index to construct an estimate of the value of that specific commodity in constant prices. However, price indexes for individual commodities are not always available and the value of that commodity in constant prices is then derived by deflating its value in current prices by one of the three price indexes: consumer price index, industrial price index or gross national product deflator, whichever is most appropriate for the

commodity in question. Seldomly is such an aggregate price index a good representative of the development in the price of a specific commodity. In spite of this shortcoming, most quantitative research, based on data in constant prices, relies on these aggregate price indexes to deflate output in current prices even for individual commodities.

The international commodity trade statistics are published quarterly and yearly, both in current prices and in physical units. To derive figures of exports and imports in constant prices, two methods can be followed: one can either deflate by an appropriate price index, or apply the method of "unit values". If total imports and exports of either one country or group of countries have to be expressed in constant prices, a number of price indexes might be considered to be "appropriate". If price indexes of imports and exports for this country are available, they should be chosen as deflators. In most cases, however, such price indexes are not available; price indexes, either of world trade or of the dominant supplier, may be chosen as deflators. It is clear that the weights of these price indexes, derived either from world trade or from the trade of the dominant supplier (or/and consumer), will in most cases, be considerably different from the weights which could be derived from the export and import commodity mix of the country or group of countries for which trade data in constant prices will be constructed. This problem is especially important if trade data in constant prices for several commodity groups have to be derived.

For example, the commodity mix of the EEC's imports of food, raw materials, chemicals, machinery, transport equipment and manufactures is so much different from the commodity mix of either world imports or exports of the dominant supplier, that no price index is satisfactory as a deflator. However, researchers deflate by these price indexes calling them the "appropriate" price indexes. Price index number problems are well-known and some can be summarized as follows:

1. Price indexes cannot fully account for shifts in the commodity mix over a period of time since the prices of the base year are exclusively based on the existing commodity mix in that base year.

2. Price indexes cannot account for changes in the quality of the products over a period of time.

3. Price indexes cannot include new products which enter the commodity group after the year chosen as base year for the index number.

Therefore, the further away the base year, the less sensitive the price index will be relative to quality changes, the inclusion of new products and shifts within commodity groups. To avoid these problems as much as possible, the base year of price index numbers is changed every five or ten years.

The second method for computing imports in constant prices is the method of "unit values". In a given base year, the value of each individual commodity is divided by the physical units (tons,

meters, etc.) to derive "unit values" which are the price of the commodity per ton, cubic meter, etc. In each future year, the unit value of the base year is multiplied by the quantity of imports measured in the same units as in the base year and the resulting figures are estimates of the value of imports in constant prices prevailing in the base year. This method can partially account for shifts in the commodity mix, provided that the unit values are calculated for well-defined homogeneous products. If unit values of aggregates are computed, this method is open for criticism. The unit value method cannot account for either changes in the quality of the product nor for the introduction of new products. The major problem with the last method is that it is very time consuming and that, therefore, some aggregation in commodity groups is unavoidable. If the commodities are defined on the basis of the three-digit SITC, the degree of aggregation may be somewhat excessive and small errors may be created in the import figures in constant prices. Indeed, shifts within the aggregates, representing one commodity defined on the basis of a three-digit SITC, will cause some errors in the values of imports in constant prices. However, the cost to one researcher for computing imports for the EEC at constant prices on the basis of the three-digit SITC, and covering the period 1951-1967, is already so high that it may be considered impossible for one person to use either a four-digit or five-digit SITC, even if the data for the imports of the EEC from the communist countries of Eastern Europe were available in such a detailed disaggregated form.

In spite of this problem, there are many reasons why I chose the method of "unit values" to compute the EEC's imports from the communist countries of Eastern Europe in constant prices. These reasons can be listed as follows:

1. The commodity composition of East-West trade is completely different from that of either world trade or of trade between industrial countries.

2. The prices of the commodities supplied by the communist countries of Eastern Europe are often below world market prices.

3. The method of unit values filters out the effects of changes in the exchange rates of the EEC countries vis-a-vis the US dollar. I will explain each point in more detail.

The major reason for choosing the method of "unit values" to compute import figures for the EEC in constant prices is that no "appropriate" price indexes were available to deflate the estimates in current prices of the EEC's imports from the communist countries of Eastern Europe, aggregated into seven commodity groups. Even if price indexes could be found and could be considered appropriate to deflate the EEC imports, in current prices, subdivided into seven commodity groups and originating from other market economies, the same indexes would not be appropriate to deflate the EEC's imports (in current prices) from the foreign trade monopolies of the centrally-planned economies of Eastern Europe. East-West trade is still mainly conducted on a bilateral and barter basis. The communist countries are concerned neither with international marketing

practices, nor with distribution methods. The foreign trade monopolies supply their products in bulk to a few customers, who themselves supply the communist countries with machinery, steel, and other products necessary for the development of the communist countries. In this process, Eastern European shoes, suits and sometimes agricultural products are exchanged for electrical machinery, consumer durables and scarce raw materials produced in the EEC. Because a machinery producer in the EEC has no outlet for either suits nor shoes, he will only buy these products at a lower price than the world market price in order to make up for the extra cost involved in the distribution and marketing of the product. The fear that trade could always end because of political tensions is the major reason why permanent distribution channels were not established. In the last five years, marketing practices have changed considerably.

The communist countries of Eastern Europe have chosen to invest in the creation of permanent distribution channels, which is a short-run investment from scarce foreign exchange earnings, but which will yield permanently higher returns for many years to come. It is clear that poor marketing and distribution methods results in commodity prices below those prevailing on the international market. The manufactured products of the planned economies are often considered of inferior quality, and spare parts for machinery and transport equipment are generally missing. Delays in deliveries are another characteristic of the poor trade practices of the foreign

trade monopolies. Machinery, produced in centrally planned economies, is mostly of lower technical parameters than similar equipment produced in market economies. These are additional reasons why the prices of the exports of the communist countries of Eastern Europe are often below world market prices. In addition, for homogeneous products such as raw materials and fuels, complaints were made by western producers that the communist countries delivered their products at "near" dumping prices.

As a result of these observations it is clear why a general price index of the EEC's imports listed in seven commodity groups is not appropriate to deflate the EEC's imports in current prices from the communist countries of Eastern Europe, because these countries have a completely different export mix to the EEC and a different trading system than most other extra-area suppliers of the EEC. It is true that the communist countries of Eastern Europe offer only a small number of products in each commodity group, but, once a commodity is offered for sale, it stays on the export commodity list of the communist countries. This pattern can clearly be observed on the basis of the three-digit SITC. It seems appropriate to use the "unit value" method because, over a period of time, the export commodity mix of the communist countries of Eastern Europe has been quite stable.

Each country reports its imports in domestic currency units. These figures are transferred into dollar terms at current conversion rates (par value). Devaluations and revaluations of the national

currencies of the EEC members in terms of the US dollar, will affect the value of imports in current prices, not only through the change in the quantity of imports, but also through the change in official conversion rates of these currencies relative to the dollar. The method of unit values eliminates this problem by expressing all imports in constant prices and exchange rates of a given base year, although the effect of either a devaluation or revaluation on the quantity of imports is still included in the value of imports at constant prices.

Because of these advantages, I computed the value of imports of the EEC from the communist countries of Eastern Europe in constant prices on the basis of the "unit value" method.

Specific problems and proposed solutions:

As base year, I have chosen 1959, because this was the first year the EEC actually became operative. The imports in value and quantity of each EEC member (namely Belgium-Luxembourg, France, Germany, Italy and the Netherlands) from the communist countries of Eastern Europe (Albania, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, the USSR and Yugoslavia) were obtained from the United Nations Commodity Trade Statistics, Series D, based on the three-digit SITC. Unit values of 1959 were computed and multiplied with the quantity figures for the years 1951 to 1967. Most products imported in 1959 were also imported prior to that year, which means that it seldom happened that a product

was imported between 1951-1958 and was no longer imported in 1959. Because of the accelerated development of the communist countries of Eastern Europe, it happened however that products imported by one of the EEC members from a specific communist country in the years between 1960 and 1967 were not yet imported in 1959. This occurred for a maximum of 5 to 10% of the imports by the mid-sixties. To understand this problem and the solution I have chosen, I will illustrate it with a hypothetical example:

Suppose that in 1959 the Netherlands did not import commodity #241 (fuelwood and charcoal) from Czechoslovakia. In 1966, however, the Netherlands imported this product from Czechoslovakia. A "unit value" for 1959 cannot be computed. The solution to the problem is as follows:

1. If in 1959 Czechoslovakia exported commodity 241 to other Common Market countries, then the unit value for Czech exports of 241 to all other EEC countries in 1959 was chosen to compute the Netherlands' imports of 241 from Czechoslovakia in constant prices for all other years between 1960 and 1967.

2. In 10% of the previous cases (which means in .5 to 1% of the commodities in the three-digit SITC) the specific communist country did not export 241 to any EEC country in 1959. Whenever this was the case, unit values of exports in 1959 of all smaller communist countries of Eastern Europe (excluding the USSR) to all EEC countries for commodity 241 were computed. This average unit value was then multiplied with the quantity in each year to find,

for example, an estimate of imports of 241 of the Netherlands from Czechoslovakia in constant prices in the years between 1960-1967. The unit values of commodity 241 for each communist country have been compared with the average unit value and it was observed that the average unit values were very close to the unit values of each communist country individually, which makes this procedure acceptable.

3. In 50% of the commodities considered in the previous case (point 2), not one small communist country of Eastern Europe exported that product to the EEC in 1959. In this special case, also the USSR's exports to the EEC were included to find the unit value of the commodity in question. This procedure was only applied to .25 to .5% of all imports of the EEC from the communist countries of Eastern Europe in the mid-1960's.

It is important to realize, that if these three steps were not chosen, it would have been necessary to exclude 5 to 10% of the EEC's imports in current prices from the communist countries of Eastern Europe from the estimates of the same imports in constant prices. Even if my solution to the problem is not completely free of error, the error will be considerably smaller than the one which would be created by the omission of 5 to 10% of the value of imports in constant prices between 1960 and 1967. In addition, these omissions would not all be evenly spread over each year, but would have grown larger in the mid- and late-1960's.

The imports (in constant prices) of each EEC country from

each communist country of Eastern Europe were then aggregated into seven commodity groups and each commodity group was added over all member countries to derive the imports of the EEC per commodity group in constant prices. The seven commodity groups are: food, raw materials, fuels, chemicals, machinery, transport equipment, and manufactures. They are composed of the following three-digit commodities:

Food: from 001 to 122, plus 921

Raw Materials: from 211 to 292, plus 421, 422, 431, 611 and 613

Fuels: 321, 331, 332

Chemicals: 271, plus 512 to 599

Machinery: from 711 to 729

Transport equipment: from 731 to 735

Manufactures: 231, 285, 341, 351, plus 612 to 698 and 812 to 899

The breakdown of these commodity groups is based on:

United Nations, Economic Bulletin for Europe, Vol. 15, no. 1, August, 1963, Notes to the Statistics, p. 127.

As previously indicated, the data are obtained from the United Nations Commodity Trade Statistics. In 1959, the SITC coverage had been altered. In 1960, of all the EEC countries only Germany reported in the new system, and by 1961 all countries reported in the new classification. The major changes, reported in 1959, were as follows:

272 was divided into 273, 274, 275 and 276

283 was divided into 283 and 286

412 was divided into 421 and 422

311 became 321

312 became 331

313 became 332

511 was divided into 513, 514 and 515

552 was divided into 553 and 554

591 became 571

599 was divided into 581 and 599

716 was divided into 717, 718, 719

721 was divided into 722, 723, 724, 725, 726, 727, 728, 729

671 became 681

681 became 671 to 679

811 became 691

699 was divided into 692, 693, 694, 695, 696 and 697

899 was divided into 893, 894, 895, 896 and 899

The data are reported in 1,000 US dollars and values smaller than 1,000 dollars are omitted. For that reason, the sum of the three-digit numbers is always either smaller than or equal to the reported totals. Because I needed the sub-totals for the construction of constant prices, the aggregates I derived are somewhat underestimated. These rounding off errors which I estimate to be 5 to 10% of total imports, cannot be corrected. The rounding off errors are especially important for the EEC's trade with the communist countries of Eastern Europe, which consists of small trade flows (even below 1,000 US dollars for some specific commodities) and

are, therefore, not registered. As previously indicates, some researchers reduce the value of imports (c.i.f.) by 10% to obtain an estimate of imports (f.o.b.). Because of the rounding off errors, and for other reasons previously mentioned, I have decided not to correct for cost, insurance and freight. In this way, I hope that part of the rounding off error will be counterbalanced by cost, insurance and freight. Observation, computation and aggregation errors made in the National Bureau of Statistics in each reporting country of the EEC are not known to me; but, ideally, these errors should be added to those listed in this chapter.

It is not customary to report at length on the errors in the data on the basis of which foreign trade models are tested. It is important, however, to know some of the errors, in order to choose the appropriate statistical methods.

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