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Economic Consequences of the European Economic Community: A Study of Economic Integration

Edward L. Sattler
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ECONOMIC CONSEQUENCES OF THE EUROPEAN ECONOMIC COMMUNITY: A STUDY OF ECONOMIC INTEGRATION

by

Edward L. Sattler

A Thesis submitted to the Faculty of the School of Graduate Studies in partial fulfillment of the Degree of Master of Arts

Western Michigan University
Kalamazoo, Michigan
November 1968
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I wish to express my sincere appreciation to Dr. Raymond Zelder of the University of Chicago for his able assistance in the writing of this thesis.

Edward L. Sattler
The goal of the following study was not to obtain a definite answer or conclusion. If that would have been the case, this analysis of economic integration has indeed been a failure. The question of goals is really one of scope. Rather than specialize in one certain area of theory or analysis, I decided that the study would be a success if I could cover the panorama of integration, including both theory and statistical analysis. I felt that what was needed was an attempt to join together a theory section, which advances the basic theoretical variables for any economic integration, along with an analysis of that integration. In this way the theory can be related to what is actually happening in this changing world of ours.

Extreme depth in both theory and analysis has been sacrificed for a comprehensive study of economic integration. This study is designed to give one a background and a framework with which he can evaluate the many new regional plans for economic integration which seem to be coming to the forefront as part of a possible solution for some nations in the world, especially the less-developed nations.
The theory section is drawn heavily from Bella Balassa because of the fact that Balassa has clearly presented both the static and dynamic effects of economic integration. I have complemented Balassa with some of the writings of Graham and Lamfalussy.

The analysis section is drawn basically from two sources, the United Nations and the Organization for Economic Cooperation and Development. I tried to obtain my data from one or two sources because the data sometimes vary from source to source depending on such things as base year used, measuring method, etc.
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Extensive discussion of the topic of economic integration has been limited mainly to the last two decades. A movement toward European economic cooperation began as early as 1944. Belgium, Luxembourg, and the Netherlands formed Benelux, a customs union in 1944. Benelux's provisions finally went into force in 1948. In 1948 the United States began a massive plan to revitalize the European economy. This massive plan was, of course, the Marshall Plan. This Marshall Plan not only put Europe back on her feet economically, but it also left an important legacy, the Organization for European Economic Cooperation (OEEC), composed of sixteen countries including most of the European countries. The Marshall Plan with the cooperation of the OEEC attempted to promote productive efficiency and output to work for monetary stability domestically and to promote cooperation in intra-European trade. The OEEC helped to establish the European Payments Union (EPU) which aided returning the European countries

to convertability. In 1958 the OEEC acting through the European Monetary Agreement (EMA), which replaced the EPU, enacted the Code of Liberalization which set up a schedule for the removal of quantitative restrictions by its members. In 1954 the Benelux countries allowed freedom of capital movements within Benelux, and in 1956 free movement of workers became a reality. In 1951 the three Benelux countries together with France, Italy, and West Germany formed the European Coal and Steel Community (ECSC). The ECSC provided a common market between the six countries covering their trade in coal, iron, and steel. The ECSC came into force in 1953 and free movement of labor came into effect in 1957. Benelux and the ECSC typified the spirit that began in Europe with the Marshall Plan. This spirit is one of close intergovernmental cooperation and mutual confidence and has substantially transformed Western Europe from an area typified by economic nationalism and bilateralism into an integrated community of nations featuring a movement to free multilateral trade. This movement toward freer trade evolved into the signing on March 25, 1957, of the European Economic Community (EEC) composed of the members of ECSC, Belgium, Luxembourg, the
Netherlands, France, Italy, and Germany. A common market initially covering mainly manufactured goods was to be established in the six member countries through a series of trade-freeing steps during a transition period subject to revision of twelve years.

A drift towards the freeing of trade in Western Europe as well as in other parts of the world is quite obvious. The EEC was followed in 1959 by the European Free Trade Association (EFTA) a free trade area composed of Britain, Austria, Denmark, Norway, Portugal, Sweden, and Switzerland and covering manufactured products.

Trade appeared to become freer in other parts of the world also. In 1961 the Latin American Free Trade Association (LAFTA) became effective. Following LAFTA in 1962, the General Treaty on Central American Economic Integration was signed allowing for the establishment of a common market in five years. Economic integration is also occurring in former French colonies in West Africa, former British colonies in East Africa, in the Middle East, and in the West Indies.

This trend throughout the world of regional economic integration has raised many questions in terms of economic impact for the world. Is the world
better off for all of these regional schemes of freeing trade or are these regions allowing for larger areas to be protected thus debasing world economic welfare? The European Economic Community is the largest in terms of national income and apparently the most successful of these regional groups. I propose to study the EEC and its effect on the world economy silhouetted against the background of economic theory to discover the benefits and costs of regional groupings.

At this point, I will define some terms relating to regional economic agreements that I have used and will continue to use further on in the thesis. There are essentially four types of regional groupings and they are a free trade area, customs union, common market, and economic union.

A free trade area is an arrangement that removes trade-inhibiting barriers between member countries while each member country deals independently with nonmember countries. In this case, very little economic coordination is required between the member countries.

In a customs union, the member countries agree not only to remove trade-inhibiting barriers between themselves but also to pursue a common commercial
policy towards the rest of the world. In other words, they would have a common external tariff structure and this involves a certain degree of cooperation in member countries' national economic policies.

A common market allows for the free flow of the factors of production as well as the removal of internal trade restrictions and a common external tariff. A high level of economic coordination is required between the member countries to allow for a unified market where goods and services as well as labor and capital can move freely to any member country.

An economic union is the ultimate in regional groupings for it entails an almost complete unification of economic institutions between the members. An economic union requires a close coordination and harmonization of the members' social and domestic policies.

The higher the degree of integration, the more closely national policies must be coordinated to prevent any recession or inflation in any country. Such countercyclical policies are needed because with increased intragroup trade and movement of labor and capital, economic fluctuations are more likely to be transmitted from country to country. The higher the
degree of integration and interdependence of economies, the greater the need for monetary, fiscal, and in some cases social coordination of policies. A system of coordinated economies will help to facilitate the balance of payments positions of the economies involved. For instance, a severe inflation initiated in one country could create a severe deficit and threaten devaluations in that country as well as possibly spread the inflation to other member countries.

A customs union requires at least some tacit agreement for coordinating monetary and fiscal policy. A common market with its free movement of factors, requires a more overt monetary and fiscal coordination of policies both of which can influence factor flows. Uncertainty about a possible interest rate differential could have a perverse effect on capital movements. Supranational authority would not be needed as long as the member countries central banks and governments cooperated. Because of the mobility of labor, social policies of the member countries must also be considered. Any imbalance of social policy could bias the flow of labor to one or more of the countries. Economic union, where economic institutions of member countries are unified, requires the establishment of
a supranational authority to coordinate monetary, fiscal, and social policies.

Now that I have described the trend toward the various types of economic regionalism I will briefly examine the development of integration theory as an economic tool. In 1931 Viner commented, "customs unions probably constitute a step toward freer trade. . ." However, in the 1930's an atmosphere of extreme protectionism existed and a customs union or anything that in any way liberalized trade was a welcome relief. International trade theorists generally indicate that by eliminating trade barriers between member countries, trade will be freer and resource allocation will be improved through specialization, mass production, etc. However, by surrounding themselves with a common external tariff, the members of a customs union are practicing a form of discrimination against the rest of the world. Very possibly, because of the larger protected area, discrimination on the while for the world may be substantially increased.

In static analysis, integration is judged by how the resource allocation is affected. Static analysis assumes as given the supplies of productive factors, the state of technology, and the market structure with established tastes and preferences. Thus, the verdict of integration rests upon whether it is on balance, trade creating, or trade diverting. Trade creation is where low cost imports are substituted for a previously protected high cost domestic supply and this results from the removal of trade barriers between the countries. Trade diversion is a shift from a lower cost outside source of imports to a higher cost source within the union as a result of the common external tariff. Thus, to examine the economic impact of integration one must consider the extent that costs have been raised on each unit of diverted trade and the extent that costs have been lowered on each unit of newly created trade. By multiplying the difference between production costs at the various sources of supply by the quantities of the goods traded and then comparing the cost change resulting from trade creation and trade diversion, one can quantitatively evaluate the union's effect on efficiency.\(^1\)

\(^1\)Wexler, op. cit., p. 35.
Consumption effects, the change in the pattern of consumption resulting from the change in prices, as well as factor movements, are also static effects of integration.

Although some economists believe that the initial static effects of integration may be detrimental, all of these economists including Balassa feel that the long run dynamic effects of integration may well be the most favorable and the most important. Dynamic effects include economies of scale, changes in the market structure, changes in investment activity, movement of labor and capital, and changes in technology.

My analysis of economic integration past, present, and future is divided into three chapters. The first chapter will deal with basic economic theory both static and dynamic to allow us to attempt to predict the economic impact of the European Economic Community. I have chosen the EEC because it is the trailblazer for economic integration. By applying economic theory to the European situation of 1957, we can make predictions about the expected results. A very important part of

the first chapter will contain Frank Graham's hypothesis advanced originally by Lamfalussy and later extended by myself concerning the actual economic impact of the EEC. At this point, the actual data will be compared with predictions based on economic theory. My final chapter will attempt to point out the major disparities between the actual performance and the predicted performance. I will attempt to reconcile the difference and point out the strong and weak points of the economic theory. I will also draw some conclusions pertaining to the future prospects of economic integration as well as recommend the proper criterion with which to deal with integration both in planning and in execution.

The objectives of the Common Market were stated in Article Two of the Treaty of Rome. The Common Market was established to promote "a harmonious development of economic activities, a continuous and balanced expansion, an increased stability, an accelerated raising of the standard of living, and closer relations between the member states."\(^1\)

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"The most commonly accepted definition of economic growth identifies it with a sustained and reasonably fast increase in per capita income."¹ Article Two stated that one of the main goals of the EEC was an accelerated raising in the standard of living and based on the aforementioned meaning of growth rate, it implies that this goal is to increase the growth rate as well as maintain it. The Treaty of Rome, among other things, proposed progress toward the harmonization of divergent agricultural policies and the creation of a central market organization for agricultural products. The treaty also proposed steps to coordinate fiscal, monetary, social, and transport policy of the member states, and an anticartel and labor mobility policy.

Many economists predicted favorable results from the EEC. Wexler comments, "...it cannot be denied that the EEC and EFTA have created a tremendous expansion of free trade among European countries and have contributed to a remarkable economic growth in Western Europe as a whole."² Viner states,


²Wexler, op. cit., p. 377.
On economic grounds, there can be little basis for reasonable doubt that the formation of a customs union embracing all or most of Western Europe or even smaller customs unions which include at least several important countries with substantial overlapping in their ranges of heavily protected industries would, in the net, contribute both to the economic recovery of Western Europe, once the necessary adjustments had been made, and to a greater degree of international specialization and production.\(^1\)

Hinshaw also believes that the EEC will be, in net, trade creating for four main reasons which I will consider at a later point. Balassa's comments in his book, *The Theory of Economic Integration*, "To summarize, economic integration in Europe serves to avoid discrimination caused by trade-and-payments restrictions and increased state intervention and it is designed to mitigate cyclical fluctuations and to increase the growth of national income."\(^2\) I will apply the test of time and experimentation to the preceding four remarks to try to discover their validity. This study will not only contribute feedback on the success of present integrations, but it


will also establish criteria for many of the underdeveloped countries who see a glimmer of hope in regionalism as a step toward solving some of their problems.

Static and Dynamic Theory

My formal analysis of economic theory will include both the dynamic effects of integration and the effect on resource allocation in the static sense. I will also examine the effect of integration on income distribution, on regional production and income, and finally on the stability of the member economies.

The static analysis is mainly concerned with efficiency in resource allocation through production effects and consumption effects. Five factors contribute to production effects. The size of the union, location and transportation costs, differences in production costs, complementarity or competitiveness of the economy, and the height of tariffs all contribute to production effects in relation to resource allocation.

In relation to the size of the union, production is expected to be more efficient if the union is an association of smaller countries rather than an association of two large countries because the gain for
the member countries is positively correlated with the relative increase in market size. This larger gain is a result of the increased possibility for specialization in smaller countries. Also, the larger the actual union in an economic area, the larger the scope for internal division of labor and gain in efficiency of resource allocation. The Common Market rates rather well in size, for the GNP of the six member countries in 1955 was 42% that of the United States while their combined population in 1960 was 92% as large as the United States. Also, no one country dominates the union, thus all six countries, especially the Benelux countries can be defined as comparatively small countries by both population and GNP.

In reference to location and transportation, "Beckerman's results reveal a high degree of correlation exists between the ranking of economic distances of countries from a given country and the ranking of the same countries with respect to their relative importance in the trade of that country."1 The six member

countries, by freeing themselves of trade restrictions, are ideally located for intracountry trade because their economic distance, measured in terms of cost and not just in miles, will prove no obstacle in the form of excessive transportation costs.

The product and cost structures of the member countries can be useful indicators of whether or not an economic union will result in a net gain from trade or a net loss. Prior to Viner's 1950 book, The Customs Union Issue, the accepted view of two or more economies was that they were complementary if the production costs were dissimilar. The larger the difference in production costs, the higher the degree of complementarity and the greater the possibility of a gain from trade between the countries. Realizing the difficulty of measuring the costs between countries such as opportunity costs, etc., Makower and Morton have concluded that if trade creation does occur, the gains will be greater the larger the difference in production costs for the two countries involved.¹ This conclusion supports the pre-Viner contention of complementarity.

However, Viner as opposed to Meade and others, defined complementarity as a loss of similarity in the range of products manufactured.

A customs union is more likely to operate in the free-trade direction, whether appraisal is in terms of its consequence for the customs union area alone or for the world as a whole, the greater the correspondence in kind of products of the range of high-cost industries as between the different parts of the customs union which were protected by tariffs in both of the member countries before customs union was established, i.e., the loss the degree of complementarity—or the greater the degree of rivalry—of the member countries with respect to protected industries, prior to customs union.¹

This definition of competitiveness is the one I will use. Viner went on to say that the greater the production cost ratios for protected industries, the more the likelihood of a gain from trade between member countries. Thus, he concurred with his predecessors on this point of costs difference. "Even a cursory glance at the industrial and foreign trade statistics of the EEC countries would reveal a considerable degree of rivalry or competitiveness in the economic structure of these economics. . . ."² As long as the increase in trade occurs at the expense of a member country a gain

¹Viner, op. cit., p. 51.
²Balassa, op. cit., p. 33.
from trade or trade creation is likely. However, if the specialization of a member country occurs at the expense of a lower cost producer outside the union, a loss of trade or trade diversion is likely. A large share of the EEC's imports consists of raw materials that EEC members cannot supply thus reducing the possibility of a member country replacing a lower cost outside source of supply or trade diversion. The larger the cost difference in any possible trade diversion, the greater the amount of diversion and the larger the loss of economic welfare.

The height of the tariffs for the member countries both before and after union also help to determine the amount of trade creation and diversion that will occur. Trade creation would be likely to occur if the pre-union tariffs between the member countries were high, if a low external tariff wall is adopted by the members, and if tariffs are low in union export markets in the outside world. The use of a weighted average in tariffs underestimates the degree of protection for a high tariff that restricts the volume of imports. A simple unweighted average is the most accurate estimate of the degree of protection because the law of large numbers will average out any substantial differences in volume. The larger the difference
between the weighted and the unweighted average, the more protection exists. In January of 1957, the EEC used the unweighted average of duties of that month. The low tariff countries of the EEC are the Benelux countries and Germany, while the high duty countries are France and Italy. The low duty members will find it easier to invade the markets of the high duty members than vice versa. Those nonparticipating countries who trade heavily with low tariff members before the union will very likely suffer trade diversion. This trade diversion will occur because the common external tariff for the union is likely to be higher than the low tariff countries preunion tariffs, thus forcing them to buy from a higher cost source within the union.

The high level of economic intercourse between the six member countries prior to the formation of the EEC indicates possibilities for further specialization. Liesner studied the efficiency of export industries in Europe and found that a substantial difference exists.¹

The results of this study prompted Liesner to conclude that economic integration could bring considerable gains in Europe.

Production effects are favorable if the increase in purchases is at the expense of domestic production rather than foreign production and if the cost differences are greater for commodities in which trade creation has occurred than for the commodities where trade diversion has occurred. Working hand-in-hand with production effects are consumption effects. A consumption effect occurs when commodities of the member countries are substituted for domestic goods and foreign goods. Consumption effects are positive if consumers substitute the commodities of partner countries for domestic rather than foreign goods. The greater the initial difference in the price ratios of the trade commodities, the larger will be the positive consumption effect. Because of the large volume of intraunion trade prior to the establishment of the union, the EEC will more likely lead to positive consumption effects. There is a greater possibility of substituting for the larger volume domestic production as opposed to foreign production. A competitive
production structure for members of a union allows for more possibilities of substituting commodities, more trade, and positive consumption effects. As I previously stated, a high external tariff is harmful in this case because it will contribute to a substitution of the commodities of member countries for foreign goods thus creating negative consumption effects.

The creation of an economic union of several countries will in all probability improve the terms of trade. The immediate affects of establishing or increasing the size of a union would be trade diversion where the member countries "reciprocal demand" for outside products would be more elastic, and the outside world's "reciprocal demand" for the union's products will be less elastic thus increasing union export prices and decreasing import prices for the union. The union is, in effect, achieving a greater bargaining power on the international market. The terms of trade will continue to improve as income increases in the member countries and their currencies appreciate. In this paper, I will be using the net barter terms of trade where the price of exports is over the price of imports with the quotient expressed as a percentage \( [(P_x/P_m) \times 100] \). A rise in these terms
of trade means that a given volume of exports will exchange for a larger volume of imports. However, the domestic prices may not increase along with an increase in income. The terms of trade will deteriorate if the prices remain stable while income increases through an increase in productivity as a result of the union. The resulting physical flows are dependent upon the elasticities, both union and nonunion, of supply and demand. If price reductions occur in those important competing sectors of the economy, the terms of trade will improve. Thus, a price reduction in the union will lead to an improvement in the balance of trade, an appreciation in their currency, and an improvement in their terms of trade. Meanwhile, an increase in real income would tend to lead to a deterioration in the balance of trade, depreciation of the currency, and a worsening of the terms of trade.¹

Any increase in efficiency within a union will mean an improvement in resource allocation within the union. By this increase in efficiency within the union, I mean that the marginal rate of transformation will tend to more closely match the marginal rate of substitution for products in member countries.

¹Balassa, op. cit., p. 65.
An equalization of the marginal rates of substitution would lead to equal factor prices. As long as conditions of production show no great dissimilarities in the member countries, trade will reduce the difference in factor prices—other things being equal. Factor movement is indeed important and must be considered. The EEC rates high on factor movement because of their similar conditions of development and production. However, there are some poor regions in the EEC such as southern France and southern Italy and factors may move away from these regions to where there is more social and economic overhead as well as other agglomerative economies. It is very likely that the private incentives of factor movements will not correspond to the social need thus requiring some state of intervention such as information on the market, cost of moving, etc. In the realm of labor the EEC finds some countries such as the Netherlands and Italy with labor surpluses, while others such as France and Belgium face labor shortages. The EEC calls for free movement of labor no later than the end of the transition period. This labor mobility will

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2Balassa, op. cit., p. 89.
certainly tend to equalize wage differentials. However, cultural, social, and language differences will dampen any chance for a large scale migration of labor. Again, the members may have to intervene through the freeing of capital, the coordination of economic policies, and the establishment of a program to assist backward areas.

Static analysis is easier to break down and quantify than is dynamic analysis. Dynamic analysis is more difficult to pinpoint because by their very character, dynamic processes simultaneously affect each other. Dynamic processes, I feel, are the determinants of the fate of integration through their interactions. Static analysis supplies a starting point and an initial perspective and because of this it is important. The very vague elements of dynamic analysis that are so difficult to quantify can only be approximated to determine direction and, hopefully, magnitude.

Views relating to the interrelationship of market size and growth have been expounded since Alfred Marshall and Adam Smith. Marshall felt that an increase in the volume of production gives rise to both internal and external economies of scale. He emphasized the point that I have just made when he said, "the static theory of equilibrium is only an introduction ... to the
study of the progress and development of industries which show a tendency to increasing return."¹ Allyn Young developed Adam Smith's dictum that the possibility for division of labor is limited by the size of the market, and he states that "taking a country's economic endowment as given . . . the most important single factor in determining the effectiveness of its industry appears to be the size of the market."² However, recently some economists have felt that at higher stages of development the relationship between market size and growth has lost its importance. Such economists as Viner and Meade, both of whom have dealt with customs union theory, feel that the dynamic effects will be negligible and of little importance. However, other economists such as Bye and Ohlin believe that economies of scale are important and that a positive relationship exists between market size and growth.

If the level of productivity depends on the size of the market, an increase in the size of the market will


contribute to productivity and growth. Differences in labor productivity give a rough indication of differences in unit costs, thus a positive relationship between market size and productivity implies an inverse relationship between market size and real costs. A wider market would allow for higher levels of manufacturing productivity not only through greater specialization, but also through the transmission of technology between industries.

Technological change is indeed important for any growth in GNP. Both R. M. Solow and B. F. Massell have conducted studies which indicate that technological change is the main determinant in growth rates, and the increased use of capital is more of a side effect rather than the main cause for growth. "Using an aggregate production function of the Cobb-Douglas type, Solow reached the conclusion that about nine-tenths of the rise in GNP per man hour from 1909 to 1949 can be attributed to technological change and the remaining one-tenth to the increased use of capital."¹ Massell also discovered that between 1919 and 1955, 190 per cent out of a 220 per cent increase

increase in output per man hour was caused by improved technology.¹ By technological change, I mean an upward shift of the aggregate production function or in other words, a larger output is obtained from the same quantity of inputs. This upward shift of the production function can be obtained through the dynamic effects such as specialization, increased investment, the larger market, and interindustry relationships.

In measuring the size of productive plants, I will use the capacity of that plant assuming that all firms produce at the lowest point of their average cost curves. The mere fact that a plant is large or small does not indicate efficiency for one must look at the range of products being produced. Labor productivity is a fairly accurate measure of the relationship between plant size and efficiency.²

J. S. Bain discovered that on the basis of optimum scales and the rise of production costs on suboptimum scales, very important economies of scale exist in the manufacturing of automobiles and typewriters and moderately important economies exist in the production of

²Balassa, op. cit., p. 128.
cement, farm machinery, rayon, steel, and tractors.¹ It will be very important to keep Bain's study in mind when we study what has actually happened in the EEC. If these economies do operate, we should see some change in the export composition of the EEC countries that is toward these industries as a result of the freeing of trade.

Western Europe is expected by many to follow the American experience of an increase in automation in machine tool production. Also, Belgium and Italy have inefficient small scale methods of heavy engineering as of 1957. Opportunities of scale for both large and small countries in the EEC also exist in small transport planes.² Again, remember these industries for later analysis of export composition.

Both internal and external economies of scale will operate in an economic integration. Internal and external economies, and hence, reduction in per unit cost are differentiated by the source from which the gain to efficiency arose. Assume that the optimum scale for a plant is 800,000 units, however, the national economy absorbs only 300,000 units annually. The creating of an


²Balassa, op. cit., p. 135.
economic union providing a market of 1,600,000 units means that two plants will be able to reach their optimum output and decrease the present per unit costs. Whether or not a country will reap benefits in resource allocation as a result of integration depends on its industrial structure. It is possible that a country does not have the resources for those industries that benefit from larger markets. An external economy occurs when there is a reduction in the per unit cost of a plant as a result of interaction of that plant with other firms in the same industry or in other industries. An external economy is the result of a change in the relationship between the firm and the market. All industries are linked together by being both sources and recipients of external economies. Each industry affects and is in turn affected by external economies whether they are the result of changes in economic overhead or the ramifications of expansion in any one industry. Joseph Schumpeter talked about the linkages between industries and the emergence of new industries on the growth rates of economies.

Stressing the importance of the market, Goran Ohlin stated that "the first step towards . . . an understanding of the growth process is simply to pay as much attention to the growth of an industry's market as is usually
lavished on the growth of its capacity."¹ The expansion of a market will allow for newly created industries becoming competitive and knowledge will be transmitted through the union. Technical change will accompany the transmission of knowledge and help determine the productivity, growth, and comparative advantage of the member countries.

Increased competition within the member countries will further magnify economies of scale, both internal and external, and consequently the efficiency in allocation of resources. One would expect more competition, the larger the market. Although firms in the EEC will grow in size, one would expect a relative decline in market power because of the enlarged market and, hence, more competition.

A further dynamic effect of integration is a possible increase in investment as a result of the probable increase in income, the size of the market, and the lessening of uncertainty. It is very likely that an increase in research expenditures will result from the larger firms and the freeing of capital movement. In Triffin's opinion, in Europe, "uncertainty and instability

over policy was far more disturbing than any degree of restriction." This increase in investment as a result of the lessening of uncertainty will be felt especially in the export industries and in foreign investment. Perroux fears possible agglomeration effects which I previously mentioned. Perroux also fears that Germany and the Benelux countries will benefit while the western and southern parts of France as well as southern Italy, already relatively depressed, will lose.

Next we will concentrate on growth rates as an indirect test for the aforementioned static and dynamic effects. I feel that this interaction of effects can be analyzed and that the growth rate is a proper criteria to judge the long run effectiveness of economic integration. The growth rates will help to indicate the overall impact of economic integration. The growth rate is actually a result of many static and dynamic factors working jointly. Once we discover the growth rates, whether they are favorable or not, we must then examine the underlying factors such as trade patterns, productivity data, and

---

other indicators to determine the actual effects of integration.

Specialization's Effects in Large and Small Countries

Now that the static and dynamic effects of economic integration have been examined in an attempt to predict the behavior of the EEC, one model concerning integration merits a review before we examine the EEC statistics. Frank Graham has given economists a model dealing with the effects of integration leading to freer trade on small nations as opposed to large nations. I will attempt to describe the basis of the model and its usefulness in predicting the economic performance of the member countries of the EEC.

In the past, investigation concerning the size of nations in relation to their economic performance was discouraged because of the difficulty of establishing the proper criterion for measuring the size of a country. Graham uses productive capacity as the criterion of measurement.\(^1\) Usually national income criterion would produce similar results. Graham

did not attempt to establish some sort of dichotomy between large and small countries. Instead, he attempted to discover certain features which small nations share and which can be used to explain their behavior in different circumstances. Graham agreed with J. S. Nicholson on the importance of the size factor in any international trade model. Indeed, Graham felt that the neglect of size as an important variable was a considerable deficiency in classical trade theory.

The price ratio on goods traded in a union will settle at the pre-trade limits of one country if there is a large relative inequality in the productive capacities of the countries and a low elasticity of substitution in consumption.¹ The post-trade ratio of exchange will settle at the limiting comparative advantage cost ratio of the larger country.

As is illustrated in the diagram on the following page, the terms of trade will shift as a result of the economic union for both the large and the small countries.

This diagram takes into effect the consumption aspect and thus studies elasticity of demand (in this case, reciprocal demand for the countries). A low elasticity of substitution in consumption would mean that people will still demand the same products thus causing the terms of trade to settle near the large country which has the largest demand for products. As the diagram illustrates, the shift in the large country's terms of trade line from $OL$ to $OL'$ was greater than the small country's shift from $OS$ to $OS'$ thus shifting the overall terms of trade line for the two countries from $OT$ to $OT'$, closer to the large country. This shift in terms of trade occurred because the change in production as
a result of the lowering of tariffs is relatively less significant in the large country with the large productive base. A small country's industries tend to be more diversified as well as smaller, thus a change in production that is the same in amount for both countries will be relatively larger for the small country. This shift makes small country exports more expensive for the large country. In other words, the large country must now give up more to get the same amount of its imports.

Wexler has stated,

for although the terms of trade are unlikely to fall outside the limits set by domestic price ratios, they may settle at one limit or the other—especially if the trading countries are of unequal size. In this case, the terms of trade may be set by the domestic price ratios of the large country thereby enabling the small country to reap large benefits from trade.¹

A large gain is possible for the small country because it can specialize exclusively in those few goods in which they have a comparative advantage. The small country's gains are great because of the usual difference between the production transformation ratios

¹Wexler, op. cit., p. 81.
at which they can produce all goods themselves and the world price ratios at which they can obtain the goods. Graham does not feel that the low level of demand for the goods of larger countries is very important. Along with export concentration in a few goods, small countries are susceptible to changes in the terms of trade and real income when basic world supply and demand conditions alter because of their more limited range of production.

In European and North American countries there does not appear to be any association between the size of the country and the export rate of growth. However, after the formation of the EEC this may change in Europe.

Rather than dealing extensively with terms of trade effects and foreign repercussion values, I will concentrate on how the formation of the union affects decreasing cost industries and eventually growth rates.

Tibor Scitovsky mentions two ways that an industry with a U-shaped cost curve may be too small. It is technologically too small when the market is too small to support even one optimum scale plant. An industry is economically too small when the market is large

\[1\text{Lloyd, op. cit., p. 43.}\]
enough to allow for at least one optimum scale plant, but too small in terms of total expenditure to be able to provide a domestic outlet for a number of firms producing at an optimum scale of output. "Scitovsky stated that only 'in a few industries' were the markets of European countries too small 'technically.' But he believed that the small economies were not large enough 'economically' to provide effective competition."¹ Scitovsky goes on to say that the lack of competitive behavior is the cause of this inefficiency. Economic integration should provide that competition.

Both Balassa and Chenery have found market size to be a significant determinant in a number of industries. Chenery, in particular, found economies of scale important in metals, machinery, transport equipment, and chemicals. As in reference to a previous study, keep these industries in mind when we study the export performances of the EEC member countries. I shall refer back to these studies. "With Continental West Europe in mind Scitovsky, Marcy, and Triffin, in their papers at the Lisbon conference, advocated the formation of tariff-free areas as an escape from smallness

and suboptimal scales of production for both small and large European countries. Young has brought out a very good point in connection with industrial interdependence. Young believes that because of industrial interdependence, the total production needed to operate fully at economies of scale is very much larger than appears from the economies of individual industries. Plants in small countries tend to be more diversified in their range of products that they produce. Gains from increased specialization within plants and industries as a result of integration and a larger market could be substantial.

Small countries are heterogeneous and do not have uniform trade characteristics and cannot all be expected to react in the same way under similar circumstances. When using Graham's model, one should consider only those small countries who have the characteristics or relationships upon which the model is based.

Now that we have explored the theory of economic integration including the static and dynamic effects

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1Lloyd, op. cit., p. 105.
2Balassa, op. cit., p. 156.

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as well as Graham's model, the next step is to analyze the boldest step of integration for many years—the European Economic Community.
AN ANALYSIS OF THE
EUROPEAN ECONOMIC COMMUNITY

Most economic theory in the field of economic integration certainly points to the probable success of the European Economic Community. I tended to agree with the leading economists that I have quoted in feeling that the EEC would be a success. However, a hypothesis based upon a study conducted by Professor Lamfalussy of Yale University led me to question the success of the European Economic Community as a matter-of-fact conclusion.

Lamfalussy felt that the high rates of growth in continental Europe for the member countries before and after the establishment of the union stimulated trade between the members of the Common Market and made it possible to set up the community. The growth patterns were already developed by 1958 and the Common Market itself had relatively little economic impact as far as growth rates were concerned.\(^1\) Based on Professor Lamfalussy's data, I felt that his hypothesis deserved the test of time. Lamfalussy carried his research only

through 1961; and because 1961 was only three years after the conception of the Common Market, I felt that a study including the time period of 1960 through 1965 would reveal a more representative verdict.

In deciding whether or not the Common Market did have a substantial impact upon the economies of the member countries, I decided to compare the six Common Market countries as a group against other countries in Europe. One could always argue that although the growth rates of the member countries might have increased only slightly, what would have happened to their growth rates had there been no economic union at all? One can only speculate about such a proposition. Because of this difficulty, I have tried to allow for any possible speculation as to what might have happened by evaluating the European Economic Community against other European countries especially the United Kingdom. I have also included the United States in the evaluation. Admittedly, many of the OECD countries are in the European Free Trade Association. However, integration theory is rather pessimistic to any possible economic success of EFTA for a variety of reasons including the major reason that their economies are complementary rather than competitive as I mentioned earlier. In this way, by including a good
cross-section of countries in the comparison, we can minimize the fact that the Common Market may have been responsible for more investment and trade worldwide through improved expectations of the future.

Before I develop Lamfalussy's hypothesis, I would like to state that a refutation of the Common Market's economic impact or a substantiation of it does not mean that I am judging the necessity or the fruitfulness of the union. Prior to formation of the union there were many forces other than economic working for establishment of the Common Market. Any consideration of an economic union, regardless of the participants, must be judged in total on political as well as economic criteria. The function of my study is to determine the economic ramifications of the formation of integrated trade areas.

The first step of a quantitative study, once you have decided on your general outline, is to establish time periods to be studied. Statistics are only as good as the context within which they are used. The question of the year with which I would begin the study was affected by the Marshall Plan following World War II. The massive spending under the Marshall Plan definitely biased growth rates. Because reconstruction was fairly complete by 1953 and the statistics that are available
best conform to this year, I have chosen 1953 as my base year. The period of time under study is 1953 through 1965, the last year with comprehensive statistics.

I feel that by selecting the outstanding variables such as growth rates and productivity, trends in trade, and export composition, all after 1960, and utilizing these variables to compare the six Common Market countries with the rest of Europe, especially the United Kingdom, any significant growth impact derived from the Common Market would be quite noticeable.

Because of my sources of data as well as the limitations of time in the independent study, I modified my variables slightly. My productivity statistics are not as complete as I would like them to be. The exports for each country are broken down into classifications in the manufacturing sector. I felt that any substantial productivity changes would occur in manufacturing. By examining the changing composition of exports, one can approximate those industries that have benefited as a result of specialization, economies of scale, interindustry dependency, and other favorable effects of the lowering of tariffs. I felt that for the purposes of this study any significant trend in the make-up of the exports
would be reflected in growth rates of exports as well as gross national product. I will examine this topic later.

The Common Market in the seven years following its inception has failed to have a major economic impact on Europe. The effects within the union itself outweigh its impact in relation to the rest of the world. The growth rates of the six countries have tended to converge. The previously faster growing countries, Germany and recently Italy, have slowed down while the slower growing countries such as France, Belgium, and the Netherlands have accelerated in their growth rates. Belgium and the Netherlands seem to have benefited most from the union. The success of these small countries suggests the relevancy of an international theory advanced by Frank Graham. This theory will be mentioned later.

When I analyzed the time period 1953 to 1965, if at all possible, I used 1953 through 1959 and 1960 through 1965 because 1958 was a recession year and using 1958 as a cut off date tended to bias growth rates in favor of the post 1958 period. Based on the post 1958 recovery of other countries as well as Common Market countries in 1959, I doubt if the establishment of the European Economic Community had that
much to do with the upturn.

By comparing the combined growth rate of the Common Market (EEC) countries against the growth rates of the Organization for European Cooperation and Development (OECD), the European Free Trade Association (EFTA), the United States, and the United Kingdom, for the period 1953 to 1965, one should see the EEC separating from the rest of the group if the Common Market has had an economic impact. In fact, (see Diagram A on page 45) other than for an apparent convergence of growth rates, the EEC remains in the pre-1960 pattern with similar fluctuations and slightly higher rates.

The only major divergence in Diagram A was the downfall of the United Kingdom growth rate after 1964. However, I believe that such unique variables as trying to be a world power and support a key currency when other countries had outstripped Great Britain's capacity to produce efficiently led to the United Kingdom's downward growth rate. Recent devaluation and restrictive internal measures hopefully will save some of Britain's problems.

Diagram A illustrates several interesting features of European growth from 1953 to 1965. Two major cycles in the rates of growth of national product are evident.
Growth Rates of GNP at Market Price
1953-1965

*NOTE: EFTA data for 1962-65 is an average of the member countries thus only an approximation

The first cycle, from 1953 to 1958 with a peak in 1955; the second cycle from 1958 to 1965 with peak growth rates in 1960 and 1964. Referring to Table 1 on page 47, growth rates by countries for the period of 1953 to 1965, one can see that the six members of the Common Market displayed this similar fluctuation with the exception of Italy. Both Diagram A and Table 1 illustrate a steady European growth rate since 1960 of about 4.5%. However, there appears to be no overall trend in growth rates other than the fact that they are converging, both for Europe and the members of the Common Market.

Diagram A also illustrates an independence of Western Europe from the United States in relation to business cycles. The European peak growth rate of 1955 and the trough of 1958 were indeed associated with the American peak and trough of the same years. But the American recession of 1954 found very little reflection in Europe. Also since 1958 the fluctuations of the United States growth rate exhibit little association with the fluctuations in Europe.

Two other significant variables are the employment and productivity statistics for Europe. Working on the assumption that labor productivity is a fairly accurate measure of the relationship between plant size
### TABLE 1

Growth Rates of GNP

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Europe</td>
<td>5.0</td>
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<td>4.3</td>
<td>2.3</td>
<td>4.3</td>
<td>6.5</td>
<td>5.1</td>
<td>4.2</td>
<td>4.0</td>
<td>5.5</td>
<td>3.5</td>
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<tr>
<td>Belgium</td>
<td>...</td>
<td>3.5</td>
<td>5.2</td>
<td>2.7</td>
<td>2.5</td>
<td>-0.7</td>
<td>2.4</td>
<td>5.7</td>
<td>4.9</td>
<td>4.9</td>
<td>4.8</td>
<td>5.0</td>
<td>2.5</td>
</tr>
<tr>
<td>France</td>
<td>2.6</td>
<td>4.5</td>
<td>5.2</td>
<td>5.8</td>
<td>5.1</td>
<td>2.8</td>
<td>2.7</td>
<td>7.6</td>
<td>4.6</td>
<td>6.6</td>
<td>5.1</td>
<td>5.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Western Germany</td>
<td>7.9</td>
<td>7.2</td>
<td>12.0</td>
<td>7.0</td>
<td>5.8</td>
<td>3.3</td>
<td>6.9</td>
<td>8.8</td>
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<td>4.1</td>
<td>3.5</td>
<td>6.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Italy</td>
<td>7.6</td>
<td>5.1</td>
<td>6.7</td>
<td>4.2</td>
<td>6.3</td>
<td>4.4</td>
<td>7.7</td>
<td>7.1</td>
<td>8.5</td>
<td>6.6</td>
<td>4.8</td>
<td>3.0</td>
<td>3.0</td>
</tr>
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<td>8.7</td>
<td>6.8</td>
<td>7.4</td>
<td>3.4</td>
<td>3.2</td>
<td>-0.1</td>
<td>5.2</td>
<td>8.9</td>
<td>3.5</td>
<td>3.8</td>
<td>3.1</td>
<td>8.2</td>
<td>5.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4.6</td>
<td>3.8</td>
<td>2.8</td>
<td>2.0</td>
<td>1.9</td>
<td>0.5</td>
<td>4.1</td>
<td>4.9</td>
<td>3.3</td>
<td>0.9</td>
<td>4.6</td>
<td>5.3</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Standard deviationa | 2.0  | 2.0  | 3.5  | 2.2  | 1.8  | 2.3  | 1.8  | 1.6  | 1.4  | 1.7  | 1.2  | 1.4  | 1.2  |

*Coefficient of variation | 0.40 | 0.40 | 0.65 | 0.57 | 0.46 | 2.33 | 0.31 | 0.24 | 0.26 | 0.41 | 0.28 | 0.24 | 0.34 |

*Calculations include all OECD countries.

*From unweighted averages of European OECD countries.

and efficiency, labor productivity statistics may very well illustrate gains from trade through specialization resulting from economic integration. Because there is no reliable and comparable data on the rate of growth of the stock of capital in the different countries, the most that one can do is to work with the ratios of gross investment and gross output and assume that these are correlated with the rates of capital accumulation. Table 2 on page 49 illustrates both output per worker and gross fixed investment. Although the time periods don't correspond exceedingly well it is interesting to note that in the 1959-64 period, France's average annual percentage change per worker was 1.8% slower while the other countries, for which information was available, held their own or increased. Proceeding to Table 3 on page 49 one discovers that gross investment measured as a percentage of GNP for the period 1959-63, was lower for France by from 5 to 10% than for the rest of the countries listed. This information certainly suggests a relationship between investment and output per worker; however, France's exports did not fall appreciably in this period. In fact, her exports were rising while her GNP was more static. This phenomenon is inconsistent with Lamfalussy's export-led growth hypothesis, which I will discuss next.
### TABLE 2*

**Output Per Worker**  
*(Annual Average % Change)*

<table>
<thead>
<tr>
<th>Country</th>
<th>1953-1959</th>
<th>1959-1964</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>7.2</td>
<td>5.4</td>
<td>-1.8</td>
</tr>
<tr>
<td>West Germany</td>
<td>6.3</td>
<td>7.1</td>
<td>+.8</td>
</tr>
<tr>
<td>Italy</td>
<td>5.6</td>
<td>5.6</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.1</td>
<td>4.9</td>
<td>+.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2.5</td>
<td>3.2</td>
<td>+.7</td>
</tr>
</tbody>
</table>

### TABLE 3**

**Gross Fixed Investment - % of GNP**

<table>
<thead>
<tr>
<th>Avg. 1959-63</th>
<th>Country</th>
<th>59</th>
<th>60</th>
<th>61</th>
<th>62</th>
<th>63</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>France</td>
<td>16</td>
<td>18</td>
<td>47</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>32</td>
<td>West Germany</td>
<td>41</td>
<td>30</td>
<td>41</td>
<td>32</td>
<td>14</td>
</tr>
<tr>
<td>34</td>
<td>Italy</td>
<td>28</td>
<td>47</td>
<td>33</td>
<td>35</td>
<td>28</td>
</tr>
<tr>
<td>37</td>
<td>Netherlands</td>
<td>52</td>
<td>31</td>
<td>48</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>United Kingdom</td>
<td>32</td>
<td>34</td>
<td>44</td>
<td>-165</td>
<td>--</td>
</tr>
</tbody>
</table>

**SOURCES:**  

The main thrust of Lamfalussy's argument was centered on the export-led growth theme. The following is an excerpt from Lamfalussy's book, The United Kingdom and the Six:

The purpose of this is to show that, on certain assumptions, the rapid development of exports will raise both the investment and the savings ratios, and the latter more than the former. Hence, capacity and productivity will grow faster without touching off a process of inflation. On the other hand, a country with slowly growing exports will end up with less investment and even less savings, therefore, combining slower growth with inflation and a steady pressure on the balance of payments. I suggest that this has been the case in Britain, while the EEC countries have enjoyed the advantages of an export-oriented growth.¹

Diagram B on pages 51 and 52 contains graphs with the export growth rates plotted against the GNP growth rates. The graphs include the five Common Market countries for whom there was information plus the United Kingdom. Because of the importance of export-led growth in Lamfalussy's argument, I will analyze the graphs country by country. Belgium has weak but positive correlation between exports and growth rate. West Germany, although it begins rather oddly, exhibits

a high positive correlation from 1962 to 1965. Italy's correlation is weak but positive. The United Kingdom's positive correlation falls down in 1964, but this may be a result of her monetary situation and unwise internal as well as foreign policies. The Netherlands have a high degree of positive correlation. France stands out as a lone exception in Diagram B. There is indeed a high negative correlation between exports and growth rate for France. I will not go any further into the possible reasons for this. However, France's correlation as well as weak positive correlations between Italy and the United Kingdom indicate that Lamfalussy's argument may not be standing the test of time as well as it might appear by examining the overall growth rates. His implications concerning growth rates seem to have held; however, his reasoning may have been faulty.

Diagram C on page 54 illustrates the major thrust of my analysis, which has been an examination of trends by nation and region. I have already stated my impression. Diagram C illustrates the relationship between OECD (Organization for European Cooperation and Development) Europe and each country. Both Diagram A and C illustrate no break in the growth pattern of EEC countries in relation to the rest of Europe since 1958.
DIAGRAM C

--- OECD Europe
--- Country

Although I would question Lamfalussy's export-led growth hypothesis, I believe his hypothesis relating to the EEC has stood the test of time, at least for the immediate future. Indeed, a visitor from another planet examining the growth rates from 1953 to 1965 would not likely ask if anything extraordinary happened around 1958 that separated the EEC countries from the rest of Europe.

On the whole, then, the popular contention that there are considerable economies of mass production that Western Europe could realize only through economic integration calls for serious qualification. If it were the case that the markets of all the Western European countries were closed to one another by high tariffs or import prohibitions, there would no doubt be considerable advantages in economic integration. In fact, however, Western European countries already trade with one another so extensively that the additional gains from the elimination of the remaining barriers to trade are likely to be of secondary importance.¹

Sidney Dell goes on to say, "What is usually forgotten, however, is that the rate of growth and the

level of investment within the EEC countries were high years before the Treaty of Rome was signed in 1957.\textsuperscript{1}

My other major conclusion, which I have derived from my study, is that possibly Frank Graham's international theory concerning small countries in an economic union might be correct. The following is an excerpt from Graham's article on the values of international trade.

Small countries are at no advantage in international trade unless they can specialize to the extent of devoting their whole resources to the production of one or two commodities for export in exchange for imports which, to produce at home would have cost them much more than the exports with which they bought them. To the degree, of course, that any country, small or large, can do this, its gains from international trade will be great. This is a matter of soil, climate, natural resources, situation, and many other factors, of which size is one.\textsuperscript{2}

Referring to Table 4 on page 57 based on time periods 1953-59 and 1960-65, one can see that Belgium, France, and the Netherlands benefited most from the economic union. Their growth rate averages for the

\footnotesize{\textsuperscript{1}loc. cit., p. 62.}

\footnotesize{\textsuperscript{2}Graham, Frank, "The Theory of International Values Re-examined," \textit{Quarterly Journal of Economics}, Vol. XXXVIII (November, 1923), 84.}

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TABLE 4

Average % Change in GNP

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>9,464,000</td>
<td>Belgium</td>
<td>2.6</td>
<td>4.6</td>
<td>3.6</td>
</tr>
<tr>
<td>49,440,000</td>
<td>France</td>
<td>4.1</td>
<td>5.3</td>
<td>4.7</td>
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<tr>
<td>59,676,000</td>
<td>Western Germany</td>
<td>7.1</td>
<td>5.5</td>
<td>6.4</td>
</tr>
<tr>
<td>51,859,000</td>
<td>Italy</td>
<td>6.0</td>
<td>5.5</td>
<td>5.8</td>
</tr>
<tr>
<td>12,455,000</td>
<td>Netherlands</td>
<td>4.9</td>
<td>5.4</td>
<td>5.2</td>
</tr>
<tr>
<td>55,039,000</td>
<td>United Kingdom</td>
<td>2.8</td>
<td>3.5</td>
<td>3.1</td>
</tr>
<tr>
<td>196,842,000</td>
<td>United States</td>
<td>2.7</td>
<td>4.2</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>OECD</td>
<td>4.6</td>
<td>4.8</td>
<td>4.7</td>
</tr>
</tbody>
</table>

post union period are indeed higher than the preunion averages. Again, I would like to note that I have chosen 1960 as the first year because by that time tariff reductions were actually starting to be effective and it was becoming apparent that the union would last. Also, 1958 was a trough year and would bias the statistics. Possibly some of France's success may be attributed to the concessions the other countries made at the formation of the union to induce France to join. Many of these concessions were in agriculture where France is rather dominant in the Common Market.

Graham's argument is valid if the small country specializes in one or two commodities for export. If this specialization has occurred in Belgium, France, and the Netherlands, it should be apparent in a statistical study of export composition. Table 5 on page 59 illustrates the trade composition of exports for 1957 and 1962 through 1965. Table 6 on page 60 indicates that there has been an increase in trade between Western Europe and the Common Market. The EEC's exports to Western Europe have increased more since 1957 than Western Europe's exports to the EEC. However, there seems to be no significant move of trade either export-wise as illustrated in Table 6 or
TABLE 5

Export Composition by %

(million francs)

<table>
<thead>
<tr>
<th></th>
<th>57</th>
<th>62</th>
<th>63</th>
<th>64</th>
<th>65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium-Luxembourg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Export</td>
<td>159,301</td>
<td>216,199</td>
<td>241,958</td>
<td>279,488</td>
<td>301,083</td>
</tr>
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(million francs)

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(million guilder)

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### TABLE 6

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<tr>
<th>Exports From Western Europe to EEC</th>
<th>Western Europe</th>
<th>EEC</th>
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<tbody>
<tr>
<td>% of Exports From Western Europe to EEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>50.8</td>
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<tr>
<td>60</td>
<td>53.3</td>
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<tr>
<td>65</td>
<td>57.0</td>
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<tr>
<td>Measure of Change</td>
<td></td>
<td></td>
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<tr>
<td>55 to 60</td>
<td>1.5</td>
<td>1.58</td>
</tr>
<tr>
<td>60 to 65</td>
<td>1.7</td>
<td>1.85</td>
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<tr>
<td>57 to 65</td>
<td>2.2</td>
<td>2.34</td>
</tr>
<tr>
<td>55 to 57</td>
<td>1.2</td>
<td>1.25</td>
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</table>

### TABLE 7

<table>
<thead>
<tr>
<th>Exports From EEC to Western Europe</th>
<th>Western Europe</th>
<th>EEC</th>
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<tbody>
<tr>
<td>% of Exports From EEC to Western Europe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>54.1</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>56.1</td>
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<td>55 to 60</td>
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<td>55 to 57</td>
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</tbody>
</table>

import-wise as illustrated in Table 7. This pattern is consistent with my former conclusion about the minor economic impact of the EEC on growth patterns. However, an examination of the export composition of the individual countries reveals several interesting trends. I chose the classifications that appear because they were the major export items for each country (see Table 5). In most cases they represent at least two-thirds of the exports for each country. Belgium-Luxembourg, France, and West Germany have all been exporting fewer and fewer manufactured goods and more and more machinery and transport goods. Meanwhile, Italy has cut down on food exports and is now exporting more machinery and transport goods. The Netherlands has increased its machinery and transport exports while the other major exports have remained about the same. Of these, Belgium-Luxembourg, France, the Netherlands, and Italy are the most pronounced, all increasing their machinery and transport exports from 7 to 11%.

The crux of Graham's argument was that, given a larger market, a small country can specialize in one or two export commodities. In this way it will be concentrating on those goods which it can produce most efficiently. However, tariff levels enter into consideration at this point. Tariff concessions as well
as large markets can lead to more efficient production from inefficient industries. Jacob Viner advances the argument that intraregional free trade is more likely to be predominantly trade-creating, where a country imports a commodity it previously produced itself, and thus beneficial, the lower the level of tariffs with the outside world.¹ This is a relative issue. In other words, it appears that those commodities of exports that are most likely to benefit from free trade are those that had high tariffs at the formation or in the initial stages of the union, assuming all tariffs will be lowered equally once the union is functioning. Randall Hinshaw listed the average duties of 90 groups of manufactured goods for the United States, the United Kingdom, and the EEC Common Tariff in 1962. This was previous to substantial tariff reductions. The two groups with the highest average tariffs were clothing and footwear and transport equipment. The average machinery tariff was also higher. The average tariff for machinery was 14% while the average for transport was 18.4%. The average for all other manufactured goods

¹Hinshaw, op. cit., p. 71.
was 13.5%. The high tariffs on machinery and transport equipment in relation to other manufactured goods fit in well with the previous analysis of export composition. This shift in exports from manufactured goods to machinery and transport equipment has occurred for the large as well as the small countries. Thus, the gain from trade because of larger markets applies mainly to small countries while the tariff reduction argument applies to both large and small countries.

Belgium, the Netherlands, and France seem to be specializing in the more efficient industries but not to the degree that Graham implied. In some cases the country increased their machinery and transport exports at the expense of other major exports and in other cases, at the expense of more minor exports.

Although Belgium, the Netherlands and France have not had major shifts in exports, their deviance in growth rates has not been that pronounced either. Graham's argument must be used only to support tendencies for movement in a certain direction. This tendency is true in these three countries.

1loc. cit., pp. 95-96.
Because of this tendency for small countries like Belgium and the Netherlands, I believe that Graham's assertion combined with Lamfalussy's hypothesis give a true picture of the economic performance of the EEC through 1965. Lamfalussy's general argument conceiving the economic impact of the EEC has stood up to the evidence very well. However, his export-led growth argument should be examined with closer scrutiny over the next few years as a result of the questions that I have raised about it. The two smallest countries in the EEC, Belgium-Luxembourg (count these two countries as one in the statistics) and the Netherlands, have become more specialized in their exports than the larger countries and this may have influenced their favorable growth rates.

At the present time, there is concern expressed that the trends of the six members of the Common Market are diverging. Both Italy and France have room in their economies for internal demand to grow and are not endangered by inflation. On the other hand, Belgium, Luxembourg, and the Netherlands are facing internal

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economies pushed to the limit and must fight against inflation. Meanwhile, Germany is in-between and is aiming for optimum growth and stability. Germany has spare capacity that should be absorbed; however, consumer demand has not followed the upward industrial investment demand.\footnote{ibid.} France has also been attempting to increase its consumer demand through a 15\% reduction in the income tax and higher family allowances and old-age pensions. Meanwhile, the Netherlands' economy has been strained by an almost too fast revival in industry. Labor costs have risen 50\% in the last four years.

All of this points to the fact that a common monetary policy for the EEC is becoming more unlikely in the near future. Inflation and some deflation exist side by side.\footnote{ibid.} The economic outlook for the Common Market appears to be clouded both because of the recent diverging trends following converging trends and the rather unimpressive showing of the EEC through 1965.
SUMMARY

After examining economic theory on integration and applying the theory to the statistical analysis of the European Economic Community, one should be very cautious to generalize about the ultimate success or failure of the Community to reach all of its goals. Both static analysis in reference to "competitive" economies, and dynamic analysis in reference to economies of scale and market, have pointed to the probable long run success of the Common Market. Indeed, economic theory would have predicted a larger expansion of intra-regional trade within the European Economic Community than within the European Free Trade Association. Between 1959 and 1965 this prediction occurred with 2.48 times the volume of trade in the EEC in 1965 as in 1959 and only 1.9 times the volume of trade for EFTA in 1965 as opposed to 1959.\(^1\) My contention is that the success of the six member countries from 1959 thru 1965 should not automatically be credited to the Common Market. A great deal, possibly most, of the growth in these six countries is more a

result of and a continuance of previous economic trends. Certainly the six countries have maintained a high growth rate since 1959 just as they had from 1953 to 1959. However, their economies have not increased in relative growth rates in comparison with other European countries. One would expect some divergence if specialization and the larger market would have had any net impact on the economy.

One thing to remember is that the formation of an integrated trading area can be looked at from two viewpoints. On the one hand, integration can be thought of as beneficial as a result of lower tariffs and freer trade allowing specialization by the member countries in their most efficient products. On the other hand, one can look at the formation of a customs union with its common external tariff as a larger area being given the shield of protection. This common external tariff can cause trade diversion which hurts not only nonmember countries, but it also hurts the affected member countries in that they are allocating their resources in those affected industries less efficiently.

The real question is concerned with the net effects of trade creation and diversion. One would think that if trade creation were dominant, the net effect would
be for the member countries' economies to grow faster than before with their relative growth patterns changing in relation to nonmember countries. As I mentioned in my theory chapter, the short run effects of a customs union are more likely to be trade diverting with the long run effects more trade creating. The Common Market has had only seven years to prove itself in this study. Because complete elimination of all internal tariffs and complete formation of a common external tariff did not become effective until July 1, 1968, one could very easily consider 1959 to 1965 as the short run for the Common Market. However, during the seven years following the formation of the EEC, internal tariff reduction along with external tariff formation was substantial. As early as July 1, 1963, internal tariffs had been reduced 60% on manufactured goods. Regardless of whether or not the EEC has had time to reflect any net change in the member countries economies, I do feel that the Common Market has received too much of the credit for the 1959 and 1965 success of the member countries. Certainly the EEC has managed to maintain the pre-union high growth rates for the member countries. But given the preunion trend, would this not have happened anyway with the EEC only slightly favorably
influencing the growth rates?

Many variables other than the scaling down of tariffs have complicated any clear analysis of the Common Market. Politics should be considered as one of the variables in Europe. Politics and economies stand side-by-side in any customs union; and unfortunately, politics sometimes interferes with economics. France's nationalism with respect to internal affairs and Germany's defense of its inefficient farms have both served to weaken the economic union. The debate over Britain's possible entrance into the EEC along with labor shortages in some countries, with surpluses in others, and inflation along with deflation have also taxed the economic operation of the Common Market.

One of the original questions that was proposed at the beginning of the theory chapter was whether or not the customs union would be beneficial for the developing nations. My analysis dealt with industrial nations and not with agricultural and developing nations. The EEC has been quite successful in lowering tariffs on manufactured goods but agriculture has been one of the "sore" points of the union. This would make any of my conclusions nontransferable. However, such things as competitiveness of the economies, possible economies of scale, and relative location of
the members are all aspects of economic theory that could be applied to developing nations. Based on my analysis of the Common Market and the fact that many of the proposed unions between developing countries are more political than economic, I would be very cautious about using a regional approach in these developing areas.
BIBLIOGRAPHY

Books


Periodicals


Bulletins and Monographs


