

AN ABSTRACT OF THE THESIS OF


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Title: STRUCTURAL ANALYSIS OF NATIONAL ECONOMIES UNDER ECONOMIC

INTEGRATION: THE LATIN AMERICAN EXPERIENCE

Abstract approved:

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The Latin American Free Trade Association (LAFTA) and the Central American Common Market (CACM) were formed in the early nineteen sixties as a means of economic integration. The theory of economic integration has concentrated on determining the impacts of the integration process on the integration unit taken as a whole, but not the impacts on the individual member countries. This thesis uses data from the Latin American experience to explore the issue of the impact of integration on growth, given individual economic characteristics as members enter into an integration unit.

The specific objectives of this study are: (1) to define a set of characteristics which describes the economic growth of the members of the economic integration units under consideration; (2) to establish how the influence of these characteristics on growth is affected by the integration process; (3) to examine the effects of integration on economic growth; and (4) to determine if the impact of integration

is predetermined by the state of the individual member countries' economies as they enter into the integration process.

Fifteen Latin American countries were analyzed for a 22 year period, 1950-1971. A linear regression model related 14 national economic structural variables and two national product deflators to the annual percent change in gross national product, both before and after integration. Equations that reflect effects of the structural characteristics on the countries' growth rates show a significant impact from the introduction of the integration process into the national economy. Integration by itself was not a significant explanatory factor. However, integration in conjunction with the structural characteristics of individual countries did have significant explanatory value.

This tends to substantiate the thesis that integration is not a uniform process but rather that its impacts on individual countries vary significantly, depending upon individual economic structures. Based on the analysis, it would appear that continued progress of economic integration may depend on equitable compensation to members of the community which were adversely affected by the integration process. This study provides a foundation for further work needed to accurately measure the impact of integration on member's growth such that adequate compensation can be affected and integration progress insured.

Structural Analysis of National Economies
Under Economic Integration:
The Latin American Experience

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STRUCTURAL ANALYSIS OF NATURAL ECONOMIES UNDER ECONOMIC
INTEGRATION: THE LATIN AMERICAN EXPERIENCE

I. INTRODUCTION

A. Problem Statement

A country embarking on the process of economic integration is faced with the prospect of uncertain influences on the national growth rate from the imposed changes in its external relations. Even assuming that a given community of trading countries as a whole will benefit from the integration process, the advancements in growth that a particular member will receive relative to the other members of the community is left unclear. The basis of the problem under consideration here is one of identifying a method of relating national economic characteristics to national growth rates, and, based on this relationship, of identifying possible impacts to the growth rates from changes in the economic characteristics as the members enter into the economic integration process.

Bela Balassa in his *Theory of Economic Integration* has hypothesized that certain national characteristics such as population growth, geography, income distribution, and resource availability, will determine the national and regional results from economic integration, but the relationships between characteristics and benefits, particularly at the national level, have been left primarily untested. The impact of Balassa's study was to create a compilation of the existing ideas

and theories of economic integration and therefore relate existing economic concepts of welfare and efficiency to those of specialization and trade at the theoretical level. Most of the analysis that has been done on common markets since Balassa's work has taken the approach of analyzing the impacts on certain sectors of the region, such as the agricultural or manufacturing sectors. McClelland in *The Central American Common Market*, for example, establishes a "minimum normal growth rate" for various sectors (such as the domestic agriculture sector), and then attributes differences between this "minimum normal growth rate" and the actual rate of growth of the sector to the effects of regional integration.

These studies and others¹ have not adequately identified the possibility that the impacts of economic integration on a member may be predetermined by certain national characteristics and may be inconsistent with the expected impact of the economic integration process on the community as a whole. The impact of economic integration on the national growth rates and the possibility of inconsistent national versus community results from the economic integration process form the foundation of the analysis to be considered here.

B. Background Information

The theory of economic integration was formulated after World War II as the developed countries established methods to facilitate the

1. See United Nations, ECLA, 1970; Krause; Maritano; and Uri.

multilateral establishment of free trade. Increased free trade was recognized by the industrial nations as a necessity for their reconstruction and eventual sustained growth after the years of world depression and war. The basic aim of economic integration in moving external transactions toward free trade was to foster intra-regional economic cooperation in an attempt to keep growing political nationalism from spilling over into the economic realm, particularly into the area of international trade. Economic integration would keep the developed countries from locking themselves into protected, economic isolationism which would hinder the efficient movement of goods and resources across national borders (Holt).

While the developed countries were accelerating their growth by reducing trade barriers through economic integration or unilateral trade agreements, the Latin Americans were being increasingly excluded from the postwar growth of world trade that was occurring in the industrial countries. During the 1950's exports from Latin America increased 10.7%, exports from the United States increased 17.2%, exports from Industrial Europe increased 57.7%, and the total exports of the world increased by 32.0%. This relatively small increase in Latin American exports was a greater problem than might appear, as the trade increases extended to the Lation Nations after World War II stemmed primarily from an increase in foreign demand for the same basic commodities upon which the Latin Americans had traditionally been dependent (United Nations, ECLA 1959).

The Latin Nations were, in fact, increasingly more isolated in their economic development and industrialization during the 1950's. The political atmosphere of this period was one that promoted economic competition among the Latin Nations themselves, rather than economic cooperation. Increased trade restrictions between the developing countries and lower trade barriers between the industrial countries coupled with the generally higher external regional restrictions of the industrial countries combined to generate two problems based on these developing trade patterns: 1) increased dependence of Latin America on unstable primary product markets, and 2) the isolation of markets due to increased feelings of nationalism in Latin America and decreased ability to compete on developed markets. Economic integration was desired as a tool which would generate intra-regional trade to diminish the effects of these two emerging problems (United Nations, ECLA 1959). The significance of increased intra-regional trade and the relation of these two problems to the Latin Nations are identified below.

A review of Latin America's basic commodity exports will demonstrate the impact of the emerging trade patterns on their economies. An indication of the export situation that these countries faced in the postwar period compared to the prewar and war period is presented in Table I, which shows the shift in the percent share of total exports taken by primary commodities for each Latin American Common Market (LACM) member. Differences between column (1) and column (2)

TABLE I.

Exports of leading primary commodities in 1955-56 as percent shares of total exports of Latin American countries, 1937-38 to 1955-56.

Country	Product	(1) 1937-38	(2) 1946-47	(3) 1955-56
Argentina	Wheat	37	24	26
	Meat	19	15	24
Brazil	Coffee	44	36	64
Chile	Copper	54	56	64
Colombia	Coffee	63	77	81
Ecuador	Coffee	15	7	23
		32	23	16
Mexico	Cotton & henequen	5	12	32
	Nonferrous metals	40	18	20
Paraguay	Quebracho & mate	22	17	17
	Cotton	32	16	15
Peru	Cotton	22	28	27
Uruguay	Wool	45	39	59
Venezuela	Petroleum	91	94	95
Costa Rica	Coffee	51	47	48
	Bananas	27	28	40
El Salvador	Coffee	94	83	82
Guatemala	Coffee	67	59	69
Honduras	Bananas	68	46	56
Nicaragua	Coffee	49	40	39

Source: Abridged from Natural Resources in Latin American Development, p. 22-23.

indicate the disruption to the trade patterns of the primary product exports caused by the World War; differences between column (2) and column (3) represent the establishment of the postwar and preintegration trade patterns primarily consisting once again of either the original or a new leading primary product. The export of coffee, for example, dropped from 44% to 36% of Brazil's total exports during the World War II era. Rather than increasing exports of manufactured products and diversifying their export line, Brazil's expansion during the postwar period centered on coffee, so that by 1955-56, 64% of its exports again consisted of one primary product — coffee.

Consideration of prices in these primary commodity markets shows why the Latin Americans were becoming increasingly dissatisfied with this developing postwar trade pattern. Table II lists selected commodity prices for the period between the end of World War II and 1959. Of particular note is the volatility of the prices of these commodities, registering up to a 48% difference in the price index annually. The inelastic nature of the demand schedule for primary products had generated unstable commodity prices and, therefore, unstable income within the export sector, a sector that represented between 8% and 26% of the Gross National Product (GNP) of the Latin Nations during this period. Examining a single commodity from Table II, coffee, it can be seen that the annual price changes ranged from 0% to 38% with an average annual change of 17%. This average change in the price of coffee on the world market can be used as an example to indicate the impact

TABLE II.

Latin America: Indices of deflated prices of selected primary commodities.
(Base 1956 = 1000; all prices deflated by the U.S. wholesale price index, base 1957-59 = 100)

Commodity	Exporter	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Copper		451	492	677	643	614	604	668	814	797	788	1103	1000	647	578	694
Iron ore	Brazil			445	431	571	565	656	1155	1101	931	993	1000	1081	1067	860
Crude oil	Venezuela	715	677	775	1050	1112	1037	914	941	1033	1054	1032	1000	1028	1017	922
Coffee	Brazil	389	468	538	510	650	963	928	951	1034	1403	1014	1000	952	798	609
	Colombia	357	413	482	481	583	798	790	789	839	1120	901	1000	840	678	585
Bananas		779	752	665	627	755	693	744	772	938	951	990	1000	932	925	929
Wheat						1323	1260	1313	1292	1130	1049	1032	1000	932	942	945
Beef (1)	Argentina					744	785	776	1001	1136	1212	1311	1000	1042	1096	1205
(2)		600	578	577	561	680	694	777	1070	1309	1333		1000			521
Cotton	Brazil		1275	1147	1229	1263	2172	1840	1714	1182	1282	1114	1000	942		
	Peru							1131	752	776	829	868	1000	751	539	658
Fishmeal		1052	1365	1219	1399	1303	1090	1026	1036	1042	1080	1082	1000	1001	1073	784
	Peru						892	842	880	874	885	988	1000	950	965	990

Source: Abridged from Natural Resources in Latin American Development, p. 49-52.

that these price changes generated on GNP. Table III calculates this impact. The 1956-57 price change is coincidentally the average price change exhibited for the 1945-49 period. Thus just an average annual change in the price of one basic commodity, as calculated in the 1956-57 example, could change a country's GNP by up to 3.2% without considering any other economic events or activities.²

This analysis of the primary product trade patterns indicates the possible impact of exports on the Latin American economies over which their governments had little or no control. This situation shows why Latin America wanted to implement some economic program to increase intra-regional trade, diversify their exports, and therefore decrease their dependence on the world primary commodity markets. In answer to the first problem of undesirable restrictive trade patterns consisting mainly of unstable primary products, it was proposed that increased intra-regional trade created through economic integration would enable a diversification of exports, shifting trade patterns to allow the countries to become less dependent on unstable commodity markets.³

The second problem, market isolation, was considered a bottleneck to efficient growth. An increase in output (which implies increased market outlet) was thought necessary for national industrial

2. The instability that exists in these national economic characteristics should be noted without regard to the sign of the direction of the change.

3. It is assumed, as proposed by the ECLA, that prices of manufactured products were more competitive and stable than the prices of the primary products.

TABLE III.

Impact of a change in coffee prices on GNP of selected exporters.¹

Exporter	% change in coffee price ²	Coffee's % share of exports ³	Export's % share of GNP ⁴	Coffee's % share of GNP	Change in GNP attributed to price change
Colombia	1955-56 +11.0	81.0	14.8	12.2	+1.32%
	1956-57 -16.0	81.0	14.8	12.2	-1.92%
Costa Rica	1955-56 +11.0	48.0	23.7	11.4	+1.25%
	1956-57 -16.0	48.0	23.7	11.4	-1.71%
Guatemala	1955-56 +11.0	69.0	28.7	19.8	+2.18%
	1956-57 -16.0	69.0	28.7	19.8	-3.17%
Ecuador	1955-56 +11.0	23.0	19.5	4.5	+.49%
	1956-57 -16.0	23.0	19.5	4.5	-.72%

¹Assumes constant quantity of coffee exported in 1955-57.²From Table II, 1955-56 = +11.0% change in the price of coffee (Colombian);
1956-57 = -16.0% change in the price of coffee (Colombian).³From Table I, 1955-1957 average.⁴From Appendix table on variables used in regression, 1955-57 average.

development. Two possible outlets for this increased production were considered: the industrial countries and the Latin American nations. Both outlets were strongly resistant to decreasing trade restrictions. The Latin Americans established barriers to trade in order to protect the expansion of their infant industry in their development plans and therefore support their import substitution policies. The developed countries were reconstructing their own industrial sectors during this period, and they were also unwilling to change their restrictions on imports of manufactured products from the underdeveloped countries, as they considered their own industries to be infant in nature and in need of protection. Of these two potential outlets for increased domestic production, expansion of trade to the Latin American nations was thought to be the most promising.⁴

Economic integration was proposed to increase cooperation and decrease nationalistic feelings so that industrial complementation and specialization could eliminate the need for market protection, and therefore fulfill the need for increased market outlet.⁵ Complementation involves planning and sharing on a regional basis the components of industrial development, using as a foundation for that development

4. Although total Latin American Trade must be increasing, and increase in intra-regional trade is considered to be the best practical approach to achieving this, the ECLA does comment that an increase in trade outside the Latin American Common Market is also necessary to continue expanding development.

5. Specialization here refers to the traditional concepts from international economic theory, applied to the balance of trade remaining after primary commodity trade is considered.

production from several members of the integration unit. This would give each nation benefits from economical industrialization and give emerging intra-regional industry a market large enough to allow the maximization of efficiency.

As well as increasing efficiency and industrial output, intra-regional specialization in industry became desired as a method of decreasing dependence on imports from industrial nations. Imports from industrial nations had to be purchased with income from exports to those countries. These exports were primarily basic commodities — commodities which were seen to be highly unstable in their ability to generate income for the developing countries. The problem of market isolation and the undesirable trade patterns discussed above are thus interrelated, stemming from the more basic and underlying problem — a lack of the free trade necessary for efficient use of resources and for sufficient demand to enable specialization in exports. Economic integration would promote free trade, which affects not only the quantity but also the composition and stability of production available to the Latin Americans for domestic and external use.

C. ECLA Doctrine

The Latin Nations requested the United Nations Economic Commission on Latin America (ECLA) to formulate a plan for economic integration whereby they could respond more successfully to the world export and price situation which was considered detrimental to Latin development.

In the 1959 report by the Secretariat of the ECLA proposing the formation of the Latin American Common Market (LACM),⁶ the three specific desired results of the establishment of the LACM were: (1) to extend production (industrial output) to each member's market; (2) to increase specialization in industry; and (3) to protect Latin America from external market fluctuations. Their reasoning followed that only by changing the existing patterns of trade so that there was a strong intra-regional involvement in the exchange of commodities, could the nations of Latin America begin to accelerate their development. The formation of the LACM would facilitate this shift in the trade patterns that would permit the free exchange of goods necessary to meet two exacting demands: (1) the need to lessen external vulnerability of the Latin American countries and (2) the requirements of industrialization. The justification that increased industrialization and increased markets would foster development in the lesser developed countries of Latin America is postulated in the ECLA doctrine which evolves as follows:

- 1) Most of the countries in Latin America are primary commodity exporters, with an economy based on one or two goods.
- 2) Given the pattern of development that has evolved out of the history of the region, these primary commodities cannot

6. The discussion of the ECLA Doctrine, pages 12-16, follow the concepts presented by the ECLA in its document (United Nations, ECLA 1959) released by the Secretariat for the planning and establishment of the treaties of the Latin American Free Trade Association and the Central American Common Market.

finance development because the capital accumulation is done by foreign investors, if it is done at all, and many of the commodities are facing decreasing world demand or extreme price fluctuation.

- 3) Therefore development can only be financed by industrialization as only industrialization will allow the capital accumulation that is necessary for development.
- 4) The Latin American countries have been unable to meet demand through importation and have industrialized in an attempt to fulfill this demand. This industrialization has primarily been in manufacturing and by the creation of small, inefficient industries.
- 5) Manufacturing has to have a large market in which to sell its goods if it is going to be able to produce an output that is large enough for the firm to take advantage of economies of scale. On the world market these manufactured commodities (consumer durables and non-durables) make up the most competitive industry group, and the Latin American industry is not able to compete with the advanced and efficient industries of the developed countries.
- 6) The expanded markets to the Latin American firms must be within the underdeveloped countries or the underdeveloped countries must have protected entry into the markets of the developed countries, a position that the developed countries

have been unwilling to present to Latin nations.

- 7) The formation of the common market would encourage strong intra-regional trade that would provide the needed expanded markets to the developing industrial sector.

A question left fundamentally unanswered in the ECLA presentation of economic integration theory concerns the impacts of the integration process to the individual members of the community. The countries signing the two basic documents creating the LAFTA and the LACM were aware that these treaties were designed to advance Latin nations with respect to the development of the rest of the world; at the same time each member was interested in being protected against (1) falling behind the rest of the Latin Nations as they began to receive benefits resulting from the integration process, or (2) being hampered by the integration process counteracting development that the countries had already taken individually. Two excerpts from Latin treaties signed in 1960 and 1961 point specifically to the issue of rising uncertainty between regional and national development goals.

"Economic integration is a collective instrument for accelerating Latin American development and should constitute one of the policy goals of each of the countries of the region... At the same time, the different levels of development and economic and market conditions of the various Latin American countries must be borne in mind, in order that the integration process may promote their harmonious and balanced growth. In this respect, the countries of relatively less economic development, and, to the extent required, those of insufficient market, will have preferential treatment in matters of trade and of technical and financial cooperation." (U.S. Congress, House of Representatives, Committee on Foreign Affairs, p. 197)

"The American Republics consider that the broadening of present national markets in Latin America is essential to accelerate the process of economic development in the hemisphere. It is also an appropriate means for obtaining greater productivity through specialized and complementary industrial production which will, in turn, facilitate the attainment of greater social benefits for the inhabitants of the various regions of Latin America... In order to assure the balanced and complementary economic expansion of all of the countries involved, the integration process should take into account, on a flexible basis, the condition of countries at a relatively advanced stage of economic development, permitting them to be granted special, fair, and equitable treatment." (U.S. Congress, House of Representatives, Committee on Foreign Affairs, p. 175)

The countries which had already developed some sort of industry wanted protection against development of similar industry in the other Latin American nations involved in the integration process, and the countries which had failed to develop any significant industry wanted to be certain that they would be granted equal footing in an opportunity to experience industrialization. This raises the central concern of this thesis. The theories of economic integration were initially presented by the ECLA for the advancement of Latin America with respect to the rest of the world. A question has arisen in the implementation of the theories concerning the rate of development of the individual members relative to the region as a whole. In order for Latin America as a group to experience rapid development, are there certain members which will develop more rapidly using the economic resources of the other members of the community?

Not until 1967 was this question of national versus regional

growth formalized by the ECLA. A meeting of the ECLA concerning the problems of the relatively less developed countries of Latin America focused on the above question and addressed itself primarily to the following:

"The problem arises mainly from the great differences that exist in the structures and levels of economic development achieved by the Latin American countries, and, therefore, from their ability to obtain real benefits from the opportunities offered by the expanded market... Owing to the shortage of technical and financial resources, insufficiency, or insufficient development of the infrastructure and the basic industrial structure, lack of entrepreneurial ability and of qualified manpower, and general limitations of available resources and capacity to mobilize them, these countries have lost economic potential. They are thus not in a position to take advantage of access to the markets of the other countries of the area offered by removal or lowering of import charges and to share effectively in the regional industrialization process being wrought by integration." (United Nations, ECLA 1967, p. 6)

The ECLA has identified the inability of the lesser developed countries of the region to benefit from integration as one of the foremost obstacles to furthering the progress of economic integration in Latin America — progress the ECLA considers essential for increasing Latin American growth in general. Given that there are differing characteristics among the various countries and given that they are integrating to accelerate Latin America's growth relative to the rest of the world, differences in the degree of benefits from integration accrued to each country must be accurately assessed. The ECLA analysis indicates that if there is to be continued progress in the integration process, adequate compensating measures must be taken to

equalize benefits.

Three methods are generally proposed for accomplishing the equalization of the desired impacts from integration to the lesser developed countries: subregional integration, complementation, and tariff concessions. Subregional integration is presently considered to be the most promising method of equalizing benefits from integration and therefore contributing to the future growth of the Latin American economies (Krause, p. 21). This solution, however, may also lead to guaranteed continued and increasing disparities between the members of the subregion. This may serve to perpetuate or even heighten the problems that now exist.

Given this premise, that economic integration is being pursued as a desirable tool to stimulate growth and that the method to best promote the adequate equalization of benefits from economic integration is the major obstacle to expansion of the integration process, it would be beneficial to increase the understanding of the degree to which national characteristics predetermine the impact of integration in order to correctly assess the compensating measures being implemented at this time. It is to address this pending situation that the specific objectives of this thesis have been formulated.

D. Objectives

Analysis of the national economic structures and linkages of characteristics of those structures to economic integration should provide

insight into the question of regional versus national growth from economic integration. The specific objectives of this study are: (1) to define a set of characteristics which describes the economic growth of the members of the economic integration units under consideration; (2) to establish how the influence of these characteristics on growth is affected by the integration process; (3) to examine the effects of integration on economic growth; and (4) to determine if the impact of integration is predetermined by the state of individual member countries' economies as they enter into the integration process.

E. Approach

Chapter I provided a description of the historical conditions and economic constraints that created the basis for pursuing economic integration as a policy to stimulate development in Latin America.

Chapter II will first present an introduction to the concepts of economic integration necessary to understand the relationships of the national characteristics to the growth rate, given the interaction of economic integration with the individual national economic structures. The balance of the chapter contains the theoretical basis of the variables selected to describe the economic structure of a country. This facilitates evaluation of the possible impact of economic integration on the growth rates of the individual countries. In order to effectively evaluate this impact, a method for determining the relative importance and actual effect of each variable on the national

growth rate will be determined.

Chapter III will provide the methodology of the analysis. It is believed that for a first approximation, a simple linear regression analysis would provide an estimate of the relative importance of the various components of the equation in explaining their role in determining the national growth rate. The basis for choosing regression as a tool and the precise linear regression method will be described. In addition, the statistical difficulties of using linear regression as applied to this particular data will be presented, along with the methods used to attempt to reduce the weaknesses of this method. Finally, the statistical problems connected with the data will be discussed.

Chapter IV provides a conclusion of the study and presents possible areas for further study.

II. HISTORY AND THEORY

A. Foundation of the Test

An act of economic integration involves the agreement by a group of nations to remove barriers to trade across their national boundaries and to create a common trade barrier to the rest of the world.⁷ The theory of economic integration, as basically presented and modified by the ECLA to apply to the Latin American countries in the introduction, is designed to extend industrial output to each member's market, to increase specialization in industry, and to protect Latin

7. The conditions of the free trade association and common market are:

1) Free Trade Area: All restrictions to the movement of goods and services are removed between the member countries; each country maintains its own level of tariffs, quotas, and other barriers against non-member nations.

2) Customs Union: All barriers to trade among participating countries are removed; a common external tariff against goods entering the union from non-participating countries is established.

3) Common Market: All restrictions to the movement of goods and services and the movement of capital and labor (factors) among members are removed and a common external tariff is established.

4) Economic Union: All restrictions of the movement of goods and services and factors are removed between member countries and a common external tariff is established. In addition there is a harmonization of social, monetary, and fiscal policies among participating nations.

Although a common barrier to the rest of the world is not necessary for the establishment of a free trade area, Snider (p. 223) proposes that the results for trade diversion and trade creation are the same for the free trade area and the common market, and because the Latin American Free Trade Association and the Central American Common Market are approaching the conditions of the Latin American Common Market, the assumptions for that trading unit are used for purposes here.

America from external market fluctuations. These changes were desired in order to contribute to the solution of Latin America's two primary problems presented in the introduction: external dependence on unstable exports and restricted market outlets, both stemming from existing undesirable trade patterns created by lack of free trade. Successful application of the theory of economic integration is predicated on certain criteria that must be present before the integration can legitimately be analyzed.

When Jacob Viner formulates his concepts of economic integration, he says that

"The purpose of a customs union is essentially to permit, by virtue of the establishment of a more extensive economic territory, a division of labor more developed, better adapted to the existing natural and economic conditions, and consequently a more abundant and lower-cost production destined for a greater market." (Viner, p. 74)

The "establishment of a more extensive economic territory" suggests that first, a member must have some potential for change in its external relations stemming from the economic integration process, and second, there must be some method of realizing an adjustment to existing effective barriers to trade such that increased external activity can in fact occur on existing potential trade.

"The removal of 'nominal' duties, or duties which are ineffective as barriers to trade, can be disregarded, and attention can be confined to the consequences of the removal, as a result of customs union, of duties which previously had operated effectively as a barrier, partial or complete, to import." (Viner, p. 43)

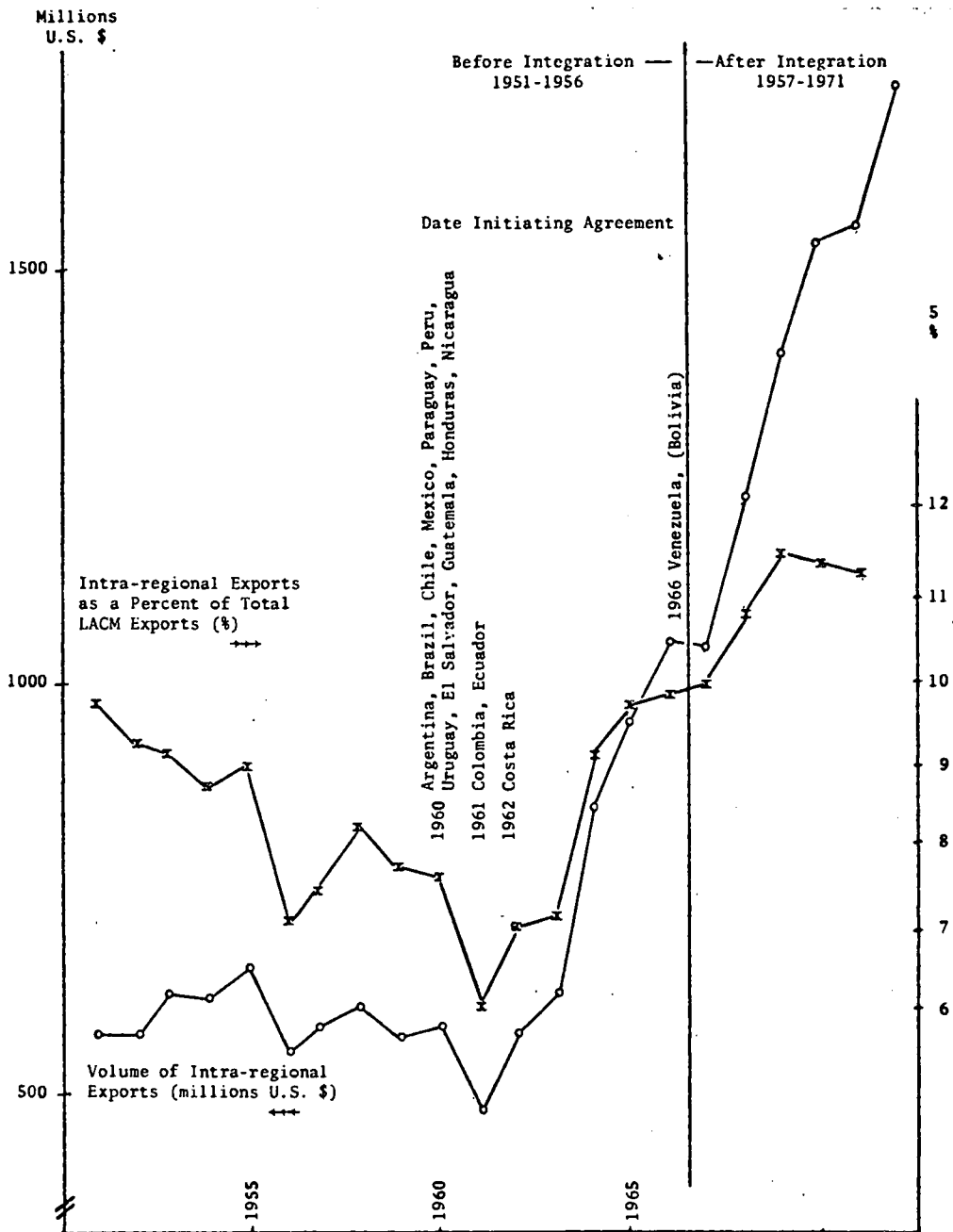
That Latin America had the potential to integrate and that a certain degree of integration has taken place through the effective changes in the trade barriers of these countries will be assumed. The validity of these assumptions is based on the change that has occurred in the level of intra-regional trade of the LACM members as shown in Figure 1. The substantial increases in intra-regional trade over the period of analysis used here indicates that a certain degree of economic integration has occurred in Latin America, changing at least the direction of the historical trade patterns.

Changes in the trade patterns and benefits from those changes are two separate issues that can be distinguished at this point. It is the impact of these changing trade patterns which lies at the foundation of the issues surrounding economic integration. Concerning the impact of economic integration on world efficiency, Meade presents the general hypothesis that:

"Our main conclusion must be that it is impossible to pass judgement upon customs unions in general. They may or may not be instruments for leading to a more economic use of resources. It all depends upon the particular circumstances of the case...a few generalisations... First, one can, I think start with some general prejudice in favour of a customs union. It represents a reduction in trade barriers which will lead in all cases to some primary expansion of trade, and on this expansion of trade there will almost always be some important gain." (Meade, p. 105)

Actual measurement of the impact of economic integration on world efficiency can be initiated only after the critical concepts of trade creation and trade diversion are introduced. Jacob Viner, in his *The*

Graph 1. Intra-Regional Exports
LACM 1950 - 1972



Customs Union Issue, originated these concepts and laid much of the groundwork for the theory. Delbert A. Snider, in his *Introduction to International Economics*, made explicit the definitions of trade creation and trade diversion. According to Snider:

"One of the chief potential economic benefits of economic integration — applicable to free-trade association, customs unions, and common markets alike — is brought about by the substitution of lower-cost foreign supplies of a good for higher-cost domestic production...a net economic gain is undeniable, and has aptly been labeled "trade creation." Trade diversion occurs when higher-cost sources of supply are substituted for lower-cost sources." (Snider, p. 223-4)

Both trade creation and trade diversion are possible results of economic integration, the balance being the affect of economic integration on world efficiency. Snider then concludes:

"Theoretically, and in general, a net gain will be realized if the sum of cost savings through trade creation exceeds the sum of cost increments through trade diversion, and a net loss incurred if the reverse balance prevails. But it is more difficult to predict which way the balance will fall in any particular integration scheme." (Snider, p. 224)

It is the pattern of trade creation and trade diversion, not its balance, which is of concern in this thesis. Whether or not world efficiency is increased or decreased through economic integration and the implications of this to overall Latin American growth will not be an issue in the arguments presented in this study.

The important point under consideration here is whether, within the region, the cost saving aspects occur predictably in one particular

country and the expense producing aspects occur predictably in another particular country because of the possession of the different national economic characteristics by those countries. This lays the foundation for the hypothesis presented in this thesis.

In summary, it is assumed that there has been some degree of economic integration in Latin America, and it is left as indeterminant as to whether a positive or negative effect on world efficiency has occurred from this integration. The net gain or loss experienced by the community and the rest of the world, depending on the balance between trade creation and trade diversion, can be treated as a separate issue from the question of one member of the community consistently experiencing a net gain and another member a net loss.

It is in an effort to address the following specific hypothesis, therefore, that the model of this thesis is presented.

Hyp: The result of economic integration is not unpredictable to a country involved in the integration process, given certain characteristics of the national economies of the countries involved in the integration unit.

In accordance with the assumptions presented and the hypothesis proposed, the national economic characteristics discussed in this thesis have two theoretical relationships which must be considered and combined before the impacts of integration on the national growth rate can be measured. The first is the relationship of the characteristic, as measured by a variable, to the national growth rate and the second is the relationship of the integration process to the characteristic.

Once these relationships have been established, measurement of the variables will allow for analysis of their importance in determining growth and the probable influence of economic integration on these variables. A description of the variables used in this study and their theoretical relationship to integration and national growth is presented below.

B. National Economic Characteristics

The following national characteristics were chosen to satisfy the two relationships established as being necessary for consideration of the hypothesis presented, the first being to consider the ability to explain national growth and the second to analyze the impact of economic integration on the national growth rate. For convenience, Table IV presents a summary of these variables, which are described below in detail. Data availability, national comparability, analytical constraints as well as probable integration impacts were the primary considerations that led to the generation of the aggregate model. The specifics of variable and data construction will be presented in Chapter III under method of analysis. The purpose of this section is to relate the variables to the integration process and the national growth rates theoretically, enabling a clear understanding of the implications of the results obtained in the tests presented. Before the variables can be viewed with a clear understanding of their effects on national growth, a definition and the implications of the

TABLE IV.

Basic Model

$$\% \Delta \text{GNP}^{a,g} = f (\text{Injections, Financial Structure, Inflation Indicators, Market Capacity})$$

where,

Injections = the proportion of national products attributed to specific components of that national product

$I/\text{GNP}^{a,h}$ = Gross National Investment % of GNP

$DI/\text{GNP}^{b,h}$ = Direct Investment % of GNP

$G/\text{GNP}^{a,h}$ = Government Expenditures % of GNP

$E/\text{GNP}^{a,h}$ = Exports % of GNP

$F/\text{GNP}^{a,h}$ = Balance of Payments % of GNP

$E_1/E^{c,b}$ = Primary Exports % of Exports

Financial Structure = the financial assets available for exchange of or as an alternative to national production

$BA/\text{GNP}^{d,h}$ = Bank Assets of commercial banks % of GNP

$FA/\text{GNP}^{d,h}$ = Foreign Assets of commercial banks % of GNP

Market Capacity = the market capacity available to the disposition of the national product

$Mk^{e,g}$ = National market (population)

$Td^{f,i}$ = Trade distance (average to partners)

Inflation Indicators = the amount of structural inflation that each country has experienced

$\% \Delta \text{CPI}^{e,h}$ = Change in Consumer Price Index

$M/\text{GNP}^{d,h}$ = Money Supply % of GNP

Sources, with exceptions noted in Appendix:

a. International Financial Statistics, National Accounts, IMF

b. Balance of Payments Statistics, IMF

c. International Financial Statistics, International Transactions, IMF

d. International Financial Statistics, Monetary Survey, IMF

e. International Financial Statistics, Interest, Prices, Production, IMF

f. National Geographic Atlas

Variable construction

g. Current Year

h. Lagged, Four year moving average t-1 to t-4

i. Constant over period of analysis

term national growth rate as used in this thesis is provided.

1. National Growth Rate

The most desirable measure of the increased well being of the people of Latin America would be a measure of increased real wealth per capita.⁸ The annual percent change in real GNP was chosen as the available measure that most consistently approached this desired concept. This proved to be a problem, as the real growth rates constructed from the data obtained from the International Monetary Fund (IMF) for use in this study produced considerably different results than the real annual growth rates calculated by either the ECLA or U.S. AID.

Leamer suggests in *Quantitative International Economics* that

"When only a crudely constructed price index is available, it may be preferable to use current-value variables and avoid the error introduced by deflating by the crude price variable." (Leamer, p. 186)

Because the percent change in GNP is the dependent variable and that it be consistent with the other variables was of concern, the IMF source for percent change in GNP data in present value was chosen as the measure for the national growth rate, as the IMF statistics were the

8. Even this provides no ability at the analysis of income distribution, but it is the most acceptable measure used in analysis of the Latin American countries, primarily because of the lack of data at other than the national aggregate level.

source for the other variables.⁹ This method produced the most compatible statistics for consideration of the other variables that were presented for analysis of the national economic structure. However, it did so at the expense of some measure of accountability of the real increases that these countries have experienced and certainly with no ability to directly measure the increased benefits to any individual in Latin America. Nonetheless this was considered the best practical approach to the problem.

2. Injectiions

The purpose of including the injections variables in the model is to establish the composition of national output demand that best describes the relative importance of the various sectors of the economy in influencing national growth. The most detail is given to the investment and foreign sectors because these are most helpful in measuring possible impacts of economic integration on output. The sectors of demand for GNP (as traditionally defined) and the variables established to describe those sectors of demand are

$$\begin{array}{ccccccc}
 \text{GNP} = & C & + & I & + & G & + & (X - M) \\
 & & & I/\text{GNP} & & G/\text{GNP} & & F/\text{GNP} \\
 & & & DI/\text{GNP} & & & & E/\text{GNP} \\
 & & & & & & & E_1/E
 \end{array}$$

9. Independent variables will be introduced in Chapter III as linear price deflators to adjust the analysis to real terms. These are the current consumer price index and the current percent change in the supply of money. These are presented in Table IV.

The variables presented in the injections section were designed to indicate the basic economic character or structure of a nation, and based on that structure, the country's ability to experience independent national growth and the probable impact of economic integration on that established performance. The variables were constructed using a four year moving average from periods $t-1$ to $t-4$. This was to avoid an identification problem, giving the countries' tendencies to trend to certain structural levels adequate time to have a clear impact (direct and multiple) on establishing the growth rate of the national product.¹⁰ There must be sufficient means of production expansion to meet the increasing demand of the individual sectors, as exhibited in the expenditure equation, for growth in national product to be maintained. More simply, as the components of GNP demand shift, the necessity of commodity market equilibrium is satisfied only by sufficient increases in GNP supply to meet the equilibrium position. This basic relationship should be kept in mind as the investment, government, and trade sectors are presented. Emphasis will be placed on the demand for national output in keeping with a hypothesis presented by Harold Vatter in his approach to the analysis of economic history:

"Because the rate of growth was a focus of national policy in the 1950's, experts carefully examined the role of the major output and spending streams as determinants of the growth rate. This emphasis on spending streams resulted from the observation that supply factors apparently placed

10. A definition of identification and other statistical terms used in this study are as presented in Hu's study, *Econometrics*.

no constraints on economic expansion, at least at the aggregate level. (Vatter, p. 282)

Only to the extent that converting supply into demand is a particular bottleneck to the underdeveloped countries will this be highlighted in this thesis.

Investment (I/GNP) has been presented specifically as gross fixed capital formation. There are two methods of increasing investment (I/GNP): the first is to increase domestic savings through decreasing domestic consumption, which is difficult for the developing nations with little to save, and the second is to maintain an import surplus. This latter method can be paid for from abroad by portfolio investment (based on relative rate of interest advantage) or by direct investment (based on a relative profit return advantage), and is available to the relatively less developed countries who find that the first method of increasing domestic savings is difficult (Snider, p. 94-96).

Total investment (I/GNP) was used to measure the country's average propensity to invest because this is the broadest measure available and gives the best data coverage and consistency with other variables used. Direct investment (DI/GNP) was selected as a portion of foreign capital that reflects differing national characteristics in terms of the country's ability to attract investment based on differing rates of return. If consistently higher direct investment (DI/GNP) has been experienced, the country has exhibited a greater ability to yield a relative profit return compared to the other countries that

have experienced a smaller level of DI/GNP .

Countries which possess higher levels of I/GNP (and DI/GNP) exhibit certain characteristics such as stability, higher levels of past income growth, and higher relative profit returns, and will generate future relative advantages in their ability to experience accelerated growth. The larger the portion of goods and services used to produce more goods and services I/GNP , the larger will be future increases in production. An increase in the I/GNP variable indicates that the nation is willing to consume fewer goods currently in anticipation of increased future consumption generated from the multiple effects of current savings influencing output. In the instance of DI/GNP , a foreigner is giving up his current consumption (imports) in exchange for ownership of the domestic capital stock, under the rationale that the rate of return on his investment in that ownership will adequately compensate him for his current loss of tangible assets.

Direct investment (DI) is of particular concern when discussing the impact of economic integration because it generally involves a relatively wealthy foreign (to the region) investor who may find it easier to forego current consumption for future consumption. This gives a more accurate picture of national comparability in potential for attracting and sustaining a certain level of investment (I/GNP) than simply using the investment of nationals who may be restricted between a choice of consumption and investment,¹¹ and not a choice

11. This occurs because of the existence of a form of the liquidity

between alternative investments with differing yields. The difference between whether or not a region will attract investment, and where in the region that investment will actually occur lays the foundation for anticipating the impact of economic integration on growth based on the differing levels of I/GNP and DI/GNP . Walter Krause, in his discussion concerning the probability of attracting foreign investment to the LACM, presents the foundation for the proposal that integration will tend to increase the investment level.

"Producers in developed-country locales external to the region, accustomed to servicing the Latin American market(s) with output from abroad, are given special reason to contemplate investment (production) within Latin America because of (a) the attraction added by the possibility of unencumbered product movement within the region, alongside (b) the new deterrent, in the form of a uniform tariff around the region, confronting an attempt at continued product entry from abroad." (Krause, p. 49)

Based on Krause's statement, investment should be attracted to the region (and through the same reasoning domestic investment should increase in the region), given pending benefits that will arise from more efficient use of resources stemming from economic integration. Once attracted to the proposition of investment with the LACM, it logically follows that producers would tend to invest in those countries which appear to be the most advantageous to maximize the return and minimize the risk on the investment. Countries that create this atmosphere are those which display the characteristics that initially motivated a higher level of I/GNP , such as national stability and

trap.

higher rate of return on the investment.

Those countries in the region that have been successful in stimulating I/GNP for reasons other than integration, such as stability or security in financial structure, will only be adding one more incentive to investors when the integration process has been initiated. The country with the highest I/GNP will be able to take the most immediate and direct advantage of, and therefore further promote, economic integration through the more immediate and efficient diversification and specialization of industry, and therefore exports, a primary goal of economic integration, to the benefit of its own growth.

There is one equalification to this hypothesis which must be considered. The country with the highest I/GNP in the integration unit should be the country that benefits the most from the integration process, as it should be the country that will best be able to facilitate national diversification of its industrialization process through utilization of its investment in efficiency producing activity generated from economic integration (Balassa, p. 101-103). To any extent that a bottleneck exists in converting increased domestic savings (supply) into functional investment (demand), the above characteristics which change expectations and therefore change savings habits of nationals, even given the added incentive of an expanded market, will have little effect on changing national growth. The ability of a country to supply increased output must be considered. Solow's development concept, discussed by Balassa, shows that significant increases

in the national product can only be achieved when increased technological change is present with increased capital, and that capital increases by themselves have little impact on the growth rate of underdeveloped countries. The lack of technological change that funnels increased saving into efficient investment uses, is a primary bottleneck of the investment sector. Technological change, Balassa continues, will be one of the primary beneficial results of economic integration. He then comments that

"Therefore, although capital formation by itself is only a minor determinant of productivity growth, the invention and application of non-technical methods would be hampered if the capital stock did not increase." (Balassa, p. 101)

Increased technological change from larger markets through economies of scale or other factors induced as a result of economic integration, without sufficient investment (I/GNP) will not result in the anticipated benefits to accelerated growth from economic integration. Another aspect of converting saving into investment, the state of the financial structure, is important enough to be measured as a separate variable.

In conclusion, it is suggested that both as a primary factor of production and as a tool to enable countries to take advantage of any technological change generated by the economic integration process, a high level of investment (I/GNP) is necessary to maximize growth, and the country with higher I/GNP is likely to be the one that benefits most from the integration process. This conclusion is reached

from consideration of both supply and demand factors.

The role of government expenditures in generating development is highlighted effectively in the article, "Formulating a Model of the Mexican Economy", by Gilberto Escobedo, where he presents a basis for establishing the public role in developing national economies:

"In general, one can conclude that the 'developing theories' have relied very heavily on Keynesian theory. Even the most recent approaches to economic policy, with a heavy content of social considerations, are still based on Keynesian-type mechanism. This is only natural if one considers that capital markets and financial institutions have been almost nonexistent in developing countries and that Government plays a central role in the economic mechanism." (Escobedo, p. 11)

He continues in his argument, however, that it is not only the actual level of government expenditures, or the existence of a government deficit or surplus which primarily determines the impact of fiscal policy on the development of the national product, but it is the method in which the expenditures or imbalance is financed that is of primary concern in determining these results. Government expenditures (G/GNP) will be used here as a proxy for the impact of fiscal policy in stimulating demand. However, it is important to note that different financial compositions of the (supply of the) variable (G/GNP) may have different impacts on the growth rates of the Latin American countries so that their tendency to exhibit these compositions can be related to their probable relation between expenditures and growth in Latin America.

There are five methods of financing government expenditures

(Escobedo, p. 13), two of which are of particular concern in comparing the Latin American countries and establishing a foundation for possible differences in the impact that the integration process will have on the members of the LACM. The first financing method of concern is credit extended to the government by the central bank, which is the basis for determining the primary impact of changes in fiscal policy on the growth rate. The second method of concern is the portion of indirect taxation that the government levies, which establishes a foundation for comments concerning the impact of economic integration on the national product.

Looking first at the central bank policy of financing government expenditures through expansion of public credit, Escobedo's analysis shows that:

"Presently the Keynesian framework allows for changes in monetary and fiscal actions to take place at the same time, and considerations about the financing of Government expenditures can be introduced. Financing with monetary expansion will result in the full Keynesian multiplier effect while financing by either taxes or borrowing from the public has a smaller multiplier effect on spending."
(Escobedo, p. 9)

Although it is hypothesized that increasing G/GNP will have a positive direct (and multiple) effect on increasing national product, this process must be critically analyzed in its interaction with the particularly volatile Latin American economies. To the extent that the government expenditure multiplier works optimally (that is, increased government expenditures are financed by the creation of new

money) a problem of the impact of the creation of this increased money supply sets in. In discussing the causes and effects of inflation in the Latin American economies, Mikesell discusses the impact of these deficits on these nations.

"Fiscal deficits have long been referred to as principal engine of inflation in Latin America. All of the high-inflation countries have experienced long periods of substantial government deficits... An examination of the governmental accounts of these countries shows that...if the uncovered capital investment expenditures were financed by real savings on the part of the public, there would need to be no expansion in the money supply attributable to the overall deficits. But a large portion of these deficits are financed by borrowing from the central bank. Expansion of central bank credit constitutes high-powered money which increases the reserves of the commercial banking system which in turn can expand credit and the money supply by multiple of the increase in bank reserves." (Mikesell, p. 159-160)

There is a balance between generating inflation and maximizing the multiple effects of fiscal policy on expanding national growth that must be considered.

An increase in government expenditures will have positive effects on output by increasing demand for national product. However, to any extent that government expenditures create excess demand, they are inflationary, and as such, they will be measured as part of the influence of government policies causing structural inflation on the economy through the inclusion of monetary and price variables in a later section.

There is an alternative to an expansion of government expenditures

having multiple effects on national production with inflationary tendencies, which arises when increased tax revenues finance the increased expenditures. It should be recalled from Escobedo's comments that the stimulus to national growth is not as great through taxation as through running a government deficit financed by increased central bank credit, but then the inflationary tendencies are not as great either. Increasing fiscal spending through tax revenues, just as with the policy of expanding credit through monetary expansion, has problems which are unique to Latin America. Given bottlenecks that initially generate inflation in spite of monetary restraint,

"The ever-increasing government deficits are in large measure a consequence of the inflation itself and the lack of flexibility of revenues. A large portion of the taxes are excise and import taxes, many of which do not rise in proportion to the increase in price."
(Mikesell, p. 159-160)

To the degree that tax revenues cannot be increased to match increased government expenditures (because of structural rigidities), the resulting deficit financed by monetary expansion will again have a multiple but inflationary influence on the economy. At any rate, given Latin American tendencies toward structural rigidities that impede increasing tax revenues to finance increased government expenditures, because a direct relationship is anticipated between G/GNP and $\% \Delta GNP$ any increase in G/GNP ($\Delta G/GNP$) will likely produce multiple impacts on output but is also apt to be inflationary.¹²

12. Analysis of the multiplier in the various sectors of the national accounts is presented in Bailey.

Tax revenues in Latin America are undercollected. The monetization of the economies, rapid urbanization, political influence, and inequities in real income generated from sharp price changes are listed as the major villains in blocking equitable and efficient tax collection.¹³ This leads to the particular concern of the second specific method of financing government expenditures listed above, that of indirect taxes. Given a) a desire to increase G/GNP to stimulate growth, b) a difficulty in collecting taxes, c) revenues that lag behind income in inflationary conditions, and d) deficit financing (necessary if taxes do not keep up with government spending, which is in the first instance directly inflationary) if governments considering entry into the economic integration unit are faced with a cut in indirect taxes in the form of reduced tariff revenues as one of their initial policy actions, then such entry will likely be directly inflationary. Governments of countries with higher levels of G/GNP composed largely of tariff revenues are likely to be vulnerable to negative impacts from economic integration, and officials who face already high rates of inflation may be unwilling to add to that situation as a consequence of increased involvement in the economic integration unit.

Government revenues generated from tariffs are significant to many of the Latin American countries. Unlike the United States, which received 1.3% of government revenues from tariffs, Peru and Uruguay, for example, receive an average of about 25% of their government

13. Equitable and efficient in terms of existing tax laws. No attempt at criticism or comment on social establishment of desired income and tax distribution is intended.

revenues from tariffs. Table V shows the average annual percent of the gross national product composed of government expenditures for the before and after integration periods and the average annual percent of government revenues generated by customs or tariff taxes for the same time periods. This shows that a country such as Chile has increased its average annual government expenditures during the after integration period and at the same time experienced a large reduction (to 64% of its average before integration level) in tariffs as a source of revenues. As suggested above, this would tend to generate inflationary tendencies in the Chilean economy from a policy of attempting to reduce barriers to trade through active participation in the economic integration process. Review of Table V presents an indication of those countries, such as Chile, which face potential problems from the economic integration process.

To the extent that integration cuts irreplaceable tax revenues, G/GNP will have to decrease or an increased deficit will be experienced. Either course will tend to have negative impacts on the economy. Either inflationary tendencies will be released or decreased government expenditure (G/GNP) will have multiple contraction tendencies on the economy, and therefore on output. In conclusion, it is hypothesized that higher levels of G/GNP will tend to stimulate growth in output, but this economic structure creates a situation which can tend to depress those economies with higher government expenditures as they enter into the economic integration process.

TABLE V.

Government Expenditures and Revenues

Average annual percent of the gross national product composed of government expenditures and the average annual percent of government revenues generated by customs or tariff taxes for the before and after integration periods.

	(G/GNP) %		(Custom/Revenue) %	
	Before	After	Before	After
Argentina	9.9	10.0	17.4	13.1
Brazil	12.7	11.9	5.7	5.2
Chile	10.2	11.8	12.9	8.3
Colombia	6.5	7.0	19.9	23.4
Ecuador	13.1	14.3	32.3	35.1
Mexico	4.8	5.8	18.0	10.5
Paraguay	7.8	7.9	35.3	23.5
Peru	8.9	11.2		24.0
Uruguay	10.3	14.2	17.0	25.1
Venezuela	14.2	14.4	5.2	4.8
Costa Rica	10.6	13.8	16.7	26.7
El Salvador	10.4	9.3	40.6	30.7
Guatemala	6.9	7.6	37.3	26.1
Honduras	8.9	9.7	32.6	30.1
Nicaragua	8.6	10.5	42.0	29.5

Exports, like other sectors of demand, have a multiple effect on the national output. It should logically follow that the Latin Americans would want to increase their exports and maintain a high export coefficient (E/GNP) in order to increase their national growth rate ($\% \Delta GNP$). Two primary reasons, basic commodity dependency and domestic economic instability, have prevented this.

The Latin American countries were heavily dependent on basic commodity exports, which were shown in Chapter I to be unstable on the national economies. The policy adopted to meet increased domestic demand for industrial goods which could not be consistently purchased with revenue generated from the unstable primary product exports, was to increase import-substitution industries rather than to increase exports. This was intended to shift the demand for national output from the less controllable export sector to the more controllable investment sector.

Import-substitution was therefore designed to decrease the need to import industrial goods which would presumably now be produced domestically and therefore to decrease the need to pay for those imports, enabling the curtailment of dependency on commodity exports. There are certain rigidities to the Latin American economic structures, however, which tend after a certain period of time, to cause bottlenecks in the external relations and create negative influences on the economy from the circumstances created from the import-substitution policy.

"The countries that made most progress in import substitution, reducing their import and export coefficients, witnessed a slackening of their growth rate as time went by and have found themselves faced with serious difficulties as they approach later stages of development. (United Nations, ECLA 1970, p. 138)

The ECLA hypothesized that the import-substitution concept was initially of sound logic as the investment required to achieve this policy would tend to have the same multiple effect on growth that an increase in exports would have. The shift in demand from exports to investment was desired because the investment sector is inherently more stable than the existing export sector. They also suggest that initially the effects of import-substitution to the countries involved were beneficial. Import-substitution was designed to lead to a broadening of the industrial base of the country, so that eventually the national industrial production would become more diversified, leading further to a diversification of exports based on this broadening national output base.

The Latin American countries failed to diversify their exports, however, and they have in fact tended to increase their concentration in the export of their primary products because of historically rigid export structures. This has caused a continuation of fluctuation in income from the external sector. There has also been general inefficiency in those industries which have been used in the import-substitution process, as the protection thought necessary for the development of these industries has at the same time limited the output to small

markets, not enabling any advantages from economies of scale to develop. Adding to these problems is the fact that many of the inputs and capital required for the operation of these industries must be imported from developed countries. In fact, the import-substitution process does not actually lower the rate of imports as would be anticipated. Rather, it binds the country into a defensive internal policy to adjust to the new import composition, and has tended to place many of the countries in a position of experiencing net decreases in their balance-of-payments, instead of net increases, as was initially expected.

"The substitution process has altered the composition of imports but has not reduced the aggregate volume of external supply requirements, which, on the contrary, has tended to expand with the growth of income and of demand for the items not replaced by domestic production. External financing has covered balance-of-payments disequilibria, for given periods, and plays an active part in the import-substitution process, but the terms have tightened increasingly so that the rate of economic growth and the further continuance of the substitution process itself have become unduly vulnerable to the vicissitudes of the balance of payments." (United Nations, ECLA 1970, p. 138)

This creates the foundation for use of the variables E/GNP , E_1/E , and F/GNP as specific measures of the countries' ability to incorporate changes in the external sector into successful national growth. The higher the level of E/GNP the more likely will the country be able to experience prolonged growth, given the past experience and existing external structure of Latin American economies. Two other

considerations, general balance of payments equilibrium and as much diversification of exports as possible, are included to qualify this relation.

Diversification of exports is a first indication that a country will be less dependent on unstable primary commodity markets and more likely to be able to use a policy of increasing E/GNP as a practical method of stimulating output demand. Expanding E/GNP has the effect of enabling increased industrial output by expanding markets other than domestic, one of the primary goals of the integration process. A large E/GNP and a minimum E_1/E are conditions that are attractive to stimulating national growth and are at the same time desirable to a country that is to enter into the integration process.

This is the point that was made by the relatively less developed countries at the 1967 meeting of the ECLA discussed in Chapter I. Although this combination of qualities in these variables is a desired result from the integration process, the countries that possess these qualities as they enter into the integration process are those that will be able to be the most competitive in these new markets. They can also therefore accelerate their national growth rate, industrial specialization, and investment, compared to the rest of the countries which, although they have the new markets available to them, are unable to take advantage of the situation because the national structures that they possess are not flexible enough for them to experience change that will let them be competitive with the relatively advanced countries of

the market. The relatively industrialized countries with lower E_1/E , that maintain a higher export coefficient, will be experiencing relatively faster growth rates as they enter into the common market, and the activity generated by the integration process will tend to accelerate this difference in the growth rates.

In summary, the generation and maintenance of a high export coefficient is a desirable factor in the stimulation of the demand for national output. But this has been a problem to the Latin American countries because of the high degree of primary commodity involvement in the export sector and because of the high degree of national instability that these economies have been experiencing. Attempts to increase output through shifting demand to the investment sector through implementation of import-substitution policies has led only to a worsening of the problems. The balance between change in the export sector and in the degree to which the export sector is composed of one primary product must be established in the regression analysis before a quantitative suggestion can be made as to the relative importance of these aspects of the foreign sector influencing national growth rate advancement.

To the extent that the economic integration process will achieve its desired goals of reducing the dependence of the Latin American economies on primary commodities or generate any national stability through the industrial expansion in the economy, then the possession of high export coefficient and low E_1/E variables should place a

country in the most competitive position to further develop industrial diversification from the integration process, and these characteristics should produce the most immediate and beneficial results from the integration process.

There is a second qualification to success in the achievement of increased national growth rates by a country seeking a higher export coefficient (E/GNP). This qualification is that the country has maintained a degree of stability compared to the rest of the members of the community. This will be reflected in many aspects of the economy, but will be measured indirectly, along with other consideration of internal versus external stability, in the country's ability to maintain a balance-of-payments equilibrium. Balance-of-payments equilibrium is a first indication of stability in external transactions. This stability will keep nations from experiencing continual foreign exchange reevaluations which have particularly disrupting effects on the domestic economy.

"In virtually every case of high rates of inflation in Latin America the exchange rate has been overvalued for a long period of time. Even where there has been frequent devaluation, the price of foreign exchange has tended to lag behind internal prices. The more industrially advanced countries in Latin America, including Argentina and Chile, have made relatively little progress in extending their industrial exports so as to reduce heavy dependence upon a few traditional primary commodities...Even the traditional primary exports have been adversely affected by inflation and overvalued exchange rates." (Nisbet, p. 175)

Whereas domestic inflationary effects on national growth rates will be measured directly as a separate variable, one of the aspects of particular interest in the use of the F/GNP variable is to attempt to measure the tendency for the country to maintain a relatively stable economic position in relation to its trading partners. This has been identified as one of the main probable hindrances to the full development of the common market. Countries experiencing great degrees of fluctuation or continual imbalance in this variable are likely to be the first to experience negative effects from the economic integration process.

The following reasoning presented by Raymond Mikesell forms the basis of the anticipated relationship between economic integration, inflation as reflected in the balance-of-payments position, and the national growth rates.

"Inflation coupled with overvalued exchange rates and a variety of governmental controls and import restrictions has created in Latin America 'closed' economies whose level and structure bears little relationship to that of the outside world, including those of other Latin American economies...Thus the proposed Latin American Common Market is incompatible with the existing 'closed' economies. At the same time 'open' economies and free trade, even within the Latin American framework, are incompatible with the existing balance-of-payments disequilibriums. If balance-of-payments equilibrium is achieved by Latin American countries, it cannot for long be maintained in the face of high rates of inflation. Moreover, given the differential rates of inflation that characterize the Latin American countries today, relatively free intra-Latin American trade could not survive." (Nisbet, p. 175-176)

As countries and their trading partners reach positions of relative stability, their balance-of-payments will reach an equilibrium at zero. Assuming once again that economic integration is actually occurring in Latin America, those countries which have maintained a balance-of-payments close or equal to zero will be those that will be able to establish and maintain the desired external transactions generated from the economic integration process.

In conclusion, countries with higher levels of E/GNP and lower levels of E_1/E , with the variable F/GNP consistently close to zero (the relative importance of these three variables to be established in regression) will be the countries that will be in the optimal position to experience increases in their national growth rates, and the implementation of the economic integration process will only serve to accelerate their rates of growth.

3. Financial Structure

The elements of the financial structure were included to represent that dimension of the national economy, the financial superstructure, which parallels the development of a country's real economic development. Raymond Goldsmith in his *Financial Structure and Development* asserts that there is a basic, direct relationship between the development of the financial superstructure and the national growth.

"The theoretical discussion of the effects of the financial superstructure on economic development may then be condensed, with some but not a decisive loss of accuracy,

into one statement: The financial superstructure, in the form of both primary and secondary securities, accelerates economic growth and improves economic performance to the extent that it facilitates the migration of funds to the best user, i.e. to the place in the economic system where the funds will yield the highest social return." (Goldsmith, p. 400)

Throughout Goldsmith's work, however, the reader receives a note of qualification or reservation about the concepts presented and the conclusions drawn. Goldsmith stresses the parallel nature of the growth of the financial and real structures, with little certainty being attached to a cause and effect relationship between the two. He qualifies his above statement, for example, with the following:

"What is more serious for economists, we have not yet succeeded in developing reliable methods to measure the extent and results of this facilitating function to finance, to determine the optimal size of the financial superstructure in relation to the real infrastructure of the economy, and to distinguish effectively the contribution of different forms of financial structure to economic growth." (Goldsmith, p. 401)

His work, he comments, is intended to serve as an initiation of a framework for analysis of the vast amount of as yet unexplored relationships between the composition and size of the financial structure and the effect of that on national growth.

For the scope of this thesis, the concept of one of Goldsmith's strongest relationships between the financial and real sectors, the relation of the ratio of financial assets to national product to the national economic development, was chosen to be applied as a proxy within the framework of an analysis by Christian and Pagoulatos. This

will be used here as the basis of establishing a relation between the injections presented as sectors of demand for national output and the financial structure necessary to support the national economy (particularly as it applies to the underdeveloped countries).

As indicated earlier, the basis for determination of a country's ability to experience growth lies in a general aggregate national product demand schedule.

$$\text{GNP} = Y = C + I + G + (\text{EX} - \text{IM})$$

In order the measure over the long run the capacity of a national economic structure to affect the supply-demand (saving-investment) transfer, the following qualification and simplification to this basic equation is introduced.

$$C = Y - S$$

$$\text{where } S = sY$$

Consumption (C) is introduced as the portion of income (Y) not saved (S), and saving is introduced as being some portion of income such that s = the marginal propensity to save. The resulting national aggregate demand function, substituting from above, becomes

$$Y = (1 - s) Y + I + G + (\text{EX} - \text{IM})$$

which provides a basic structural equation that can be used as an aggregate model to form the foundation of a description of the national economies under analysis.

Substitution of factors presented by Christian and Pagoulatos enable consideration of the development of the financial structure in

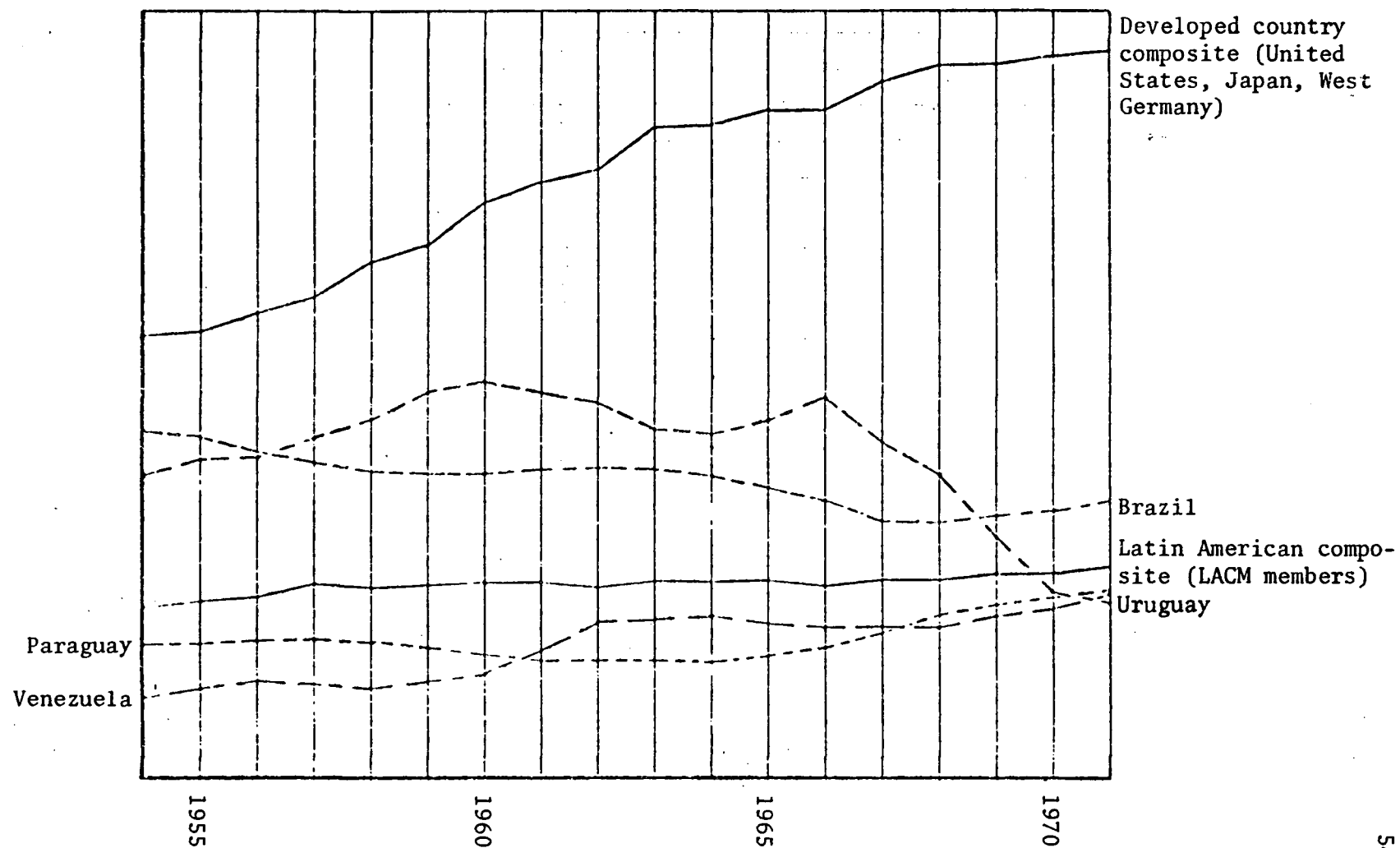
relation to the sectors of demand of the national product. In their study, $s = (a_1 + a_2Z)$ where Z is an index of financial structure development ranging from zero to one, one being fully developed financial markets. The a_1 saving is convertible into investment without the use of financial intermediation and a_2 saving requires the use of a financial structure to be transformed into effective investment. Z is approximated here by the ratio of Bank Assets to National Product. The resulting national demand equation becomes

$$Y = [1 - (a_1 + a_2BA/Y)] Y + I + G + (EX - IM)$$

The validity of using BA/GNP to approximate an index ranging from zero to one is based on the historical observation of the development of this variable for developed and underdeveloped countries and the consideration that, for a first approximation, this provides a credible measure of the different stages of advancement of the financial structures under consideration. Figure 2, presenting the BA/GNP ratios for a composite of developed countries, a composite of LACM countries, and the least and most rapidly growing countries of Latin America, points to the historical differences that are at the foundation for the use of the variable in this analysis. The developed countries show a strong, positive climb from 45% to 80% for the BA/GNP. The recent historical experience of individual countries, such as Japan, would lead to the assumption that the BA/GNP will approach 100% and then level off there.¹⁴ The developed countries' ratio also shows the considerable

14. This assumption is based on historical observation. The possibility does exist that the BA/GNP ratio can exceed 100%.

Graph 2. Bank Assets as a Ratio of Gross National Product
(1950-1971)



difference that exists between the financial structure in their countries and the level of the financial structure that exists in the underdeveloped countries of Latin America, with the BA/GNP ratio for the LACM rising only from 17% to 22% over the years under analysis. The BA/GNP variable is therefore intended to provide a measure of that portion of the national economic structural equation that contains the financial superstructure of the country and is included in the model to give a broad indication of the propensity of the country to build institutions to facilitate the financial intermediation indicated above as being necessary to avoid a restriction of the transformation of savings into effective investment. This variable has a range from 0% to 100% and for the Latin American countries varies approximately from 10% to 50%.

The BA/GNP was chosen to represent a segment of the economy critical to the development ability of the country. It is closely linked to attitudes and capacities of investment demand and constitutes, as does investment, an indication of the entrepreneur's belief in the validity of the state of his economy and the capacity for efficiency in output and accelerated growth to be generated from increased financing. This is stated in different terms by Goldsmith in a discussion concerning the development of the financial institution's role in the national economic structure.

"If all individuals were equally able investors...the separation of the function of saving and investment and the transfer of savings from one unit to another for

investment by the latter would not increase national product or accelerate economic growth. Once such inequalities exist, the process of separating saving and investment will, or at least can, have positive effects on economic growth, and can continue until the (discounted) rate of (expected) net return of all investing units has been equalized." (Goldsmith, p. 401)

To the extent that the Latin American economies do not exhibit these equalities, "that all individuals are equally able investors", the variable BA/GNP may lead to a measure of growth potential.

Given the qualifications presented by Goldsmith, however, that there is a parallel relationship between the financial and real structure, but that there is little statistical foundation for supporting a cause and effect relationship, rather than implying that a certain level of bank assets relative to the level of national output is a cause of growth, the framework used here, as adapted from Christian and Pagoulatos, promotes the concept that a certain level of BA/GNP is necessary so as not to hinder the transfer of goods and services from the sectors of supply to the sectors of demand. In other words, the transfer of goods is being suggested here as the cause of economic growth, and the financial structure availability as necessary to affect efficiency in the transfer. The higher the level of BA/GNP, the more efficient the transfer of income to output will be, and therefore given considerations to optimize growth in the real sector, the country with the highest BA/GNP will be able to best facilitate national economic growth.

Although he provides little evidence for a cause and effect

relation between financial structure development and national growth, Goldsmith does propose that there is probably an efficiency producing aspect of the financial structure in its own right (rather than as a transfer mechanism). This is particularly true in the framework of the public capital goods sector, where social overhead and other large projects can only be accomplished by the accumulation of sizeable amounts of capital, a factor that is not necessarily related to the capabilities of the entrepreneurs as much as it is related to the absolute size of the investments necessary to carry out the proposed project. This relates to one of the more important aspects of the financial structure when discussing the impacts that the economic integration process will have on the national economies. One of the largest barriers to increasing trade between the Latin American countries is the physical nature of the countries involved. In order to trade competitively with the other members of the community, there is not only a necessity of building efficient industrial operations to produce competitive output, but there is a necessity to provide a means of transporting the goods from one point on the continent to another economically. The establishment of industries and transportation systems necessary to carry out these functions involves the efficient capitalization of savings, a process that will be substantially hindered if there is no financial structure of sufficient size to enable the pooling of large sums of funds in an effective manner to accommodate these projects.

In conclusion, the larger the ratio of Bank Assets/National

Product (as a proxy for the financial assets of the country), the less likely the country is to be hampered from the conversion of savings into effective investment and the more direct and positive will this ratio be associated with the national growth rate. Also, because of the nature of the obstacles with which the economic integration process is faced — those problems of industrial inefficiency and larger industrial intra-regional trade over major physical barriers — the implementation of remedies requires large amounts of capital. Therefore, the larger the country's ratio of BA/GNP the more apt the country is able to facilitate its development and stimulate growth from the economic integration process.

Foreign assets (FA/GNP) is a variable included to measure that portion of the financial structure composed of assets external to the economy in origin. It is anticipated that this variable has many of the same relationships to BA/GNP that the DI/GNP variable has to the I/GNP variable. FA/GNP is a small, but important portion of the larger BA/GNP variable except that the relationship of this component will be the reverse of that established in the investment sector. Whereas the DI/GNP ratio indicated the foreigner's concept of the suitability for investment in the domestic economy, the FA/GNP variable measures the domestic's concept of the domestic economy compared to the rest of the world. If a banker has little confidence in the stability of the domestic assets that are available to him for investment and elects to hold a large portion of his bank's investments, securities, or overall

assets in the form of foreign assets, then it follows that there is a degree of security and return on those foreign investments anticipated by him that is greater than the return on the selection of domestic assets available to him.

Whereas the overall BA/GNP was designed to measure the availability of the financial superstructure to be applied to the process of real national economic development, this variable (FA/GNP) is designed to indicate the rating that financial institutions place on the domestic versus the foreign potential for establishing methods of facilitating investment. Both in terms of potential for national economic growth and in terms of results from the economic integration process, the lower the FA/GNP variable is, the higher the national growth rate is going to be.¹⁵ As the economic integration process develops, the country with the higher level of FA/GNP may be receiving a higher immediate return on its investment, but it will not necessarily be in the advantageous position described of the country with the higher BA/GNP. The portion of BA/GNP which consists of FA/GNP will not be in the position of establishing the investment and infrastructure of the domestic economy, such that the country will be able to take advantage of the integration potentials created for expanded investment and trade

15. This does not make the assumption that in the final analysis the difference between the foreign and the domestic return on the investment will not be as great to the national growth as the initial investment in the domestic economy would have been.

facilities. The country with the higher FA/GNP will be facilitating the investment of another country which will be able to take advantage of their expanded investment position and will be developing their financial structure at the expense of their current real structure.

Therefore both in terms of the direct impact on the expansion of the national growth rate, and in terms of the potential created through the establishment of the economic integration process, the country with the higher FA/GNP will presumably have elected this portfolio position in the short run to receive a greater return on investments, but may be doing so at the expense of opportunities to increase domestic investment needed for future growth and development. The decisions in the portfolio maintenance of the assets of the financial institutions facilitate the transfer from the savings sector to the investment sector. If the primary decision of those involved is to transfer the savings of the domestic economy into investment in the foreign sector, for the return prospects of those that are doing the saving, then this will probably be to the detriment of the growth prospects of the domestic economy. This will create an instance of factor of production diversion (discussed above in the investment analysis), leaving available to the domestic entrepreneurs the option of paying a higher relative cost for the attraction of capital necessary for the investment expansion and facilitation of the economic integration process.

In summary, the injections and financial variables provide the basis for the analysis to be presented. There was formulated a basic

aggregate demand equation that incorporated the real and financial aspects of the national economic structure into one function, given above as

$$Y = [1 - (a_1 + a_2 BA/Y)] Y + I + G + (EX - IM)$$

To determine the relative impact of the various components of demand on total demand from injections and transfer savings from income to output and to be able to compare the various countries involved in this study, the average tendency for the countries to exhibit these characteristics was determined. National demand components can then be expressed as

$$1 = 1 - a_1 - a_2 BA/Y + I/Y + G/Y + (EX - IM)/Y$$

It is proposed that the balance between these variables characterize each country to generate the differences in growth rates that the countries experience. The basic function generated, with the variables to be considered to measure each sector substituted becomes

$$\% \Delta GNP = f([(I/GNP, DI/GNP), (G/GNP), (E/GNP, E_1/E, F/GNP)] [BA/GNP, FA/GNP])$$

The other two sectors to be added, market capacity and inflation indicators (see Table IV), are to attempt to make the function more responsive to the particular hypothesis of this analysis.

4. Inflationary Indicators

Inflation means a "growth of means of payment in relation to the total of available goods and services" (Nisbet, p. 174). There are two views on the process of the growth of means of payments relative to

output and the consequences of the pursuing inflation on the ability of the country to experience real growth: the monetarist view and the structuralist view. In "Monetarism and Structuralism in Latin America", Roberto de Oliveira Campos asserts that there is a minimum of difference between the two.

"The truth is, that in the short run, all structuralists when entrusted with policy-making responsibilities become monetarists, while all monetarists are, in the long run, structuralists. Thus, we might loosely define a monetarist as a structuralist in a hurry and a structuralist as a monetarist without policy-making responsibility." (Campos, p. 242)

Both approaches, he contends, must be considered before an accurate appreciation of the inflationary pressures in the economy can be presented. The debate over the origin of inflation becomes a bit academic, however, as he also suggests that neither economic viewpoint of the situation has been capable of success in deterring continued inflation.

"Economists of the structuralist persuasion...presented practically no innovations as compared to prior stabilization efforts oriented by economists of the monetarist persuasion. Not only were the remedies and policies quite similar but the failure of the programme came with the same speed, bearing evidence to the fact that stabilization is much less a technical problem than a political one." (Campos, p. 241)

The fact that several Latin Nations have been unable to successfully correct inflationary tendencies in the long run, from whatever origin, leads to the necessity of including in the description of the national growth rate an indication of the possible effects on the economy of prolonged, significant inflation. These variables are not intended to

perfect the measurement by adjusting from an inflated to a real measure, rather, they are included to indicate the impact of continued, significant inflationary tendencies on the country's growth. The variables used in this model are M/GNP and $\% \Delta CPI$.

The M/GNP ratio is used to indicate the "growth of means of payment" referred to above as a possible initiating factor of the inflationary process. This is an extremely difficult variable to analyze, as there are two aspects of financial development which might significantly affect the level of this variable. The first aspect is that an increase in this variable suggests a national movement towards stability, as people are willing to hold a larger portion of their assets in the form of money. The increase in the money supply need not be inflationary.

"As long as the growth of voluntary cash holdings absorbs the increase in money, equilibrium remains insured...It is not by itself, therefore, that monetary circulation tends to provoke inflation, but only in as much as it provides the means by which additional demand is made effective." (Uri, p. 15)

To the extent that there is no change toward an anticipation of stability, the transactions demand for the money increases and in the short run (output is relatively fixed) the change in the money supply is translated directly into excess demand and price increases. The ratio M/GNP (or M/PQ) has no significant change unless prices become distorted from anticipations of further inflationary pressure beyond that created by the change in the money supply, in which case the ratio

would experience a decrease.

Countries with the highest degree of instability will have the most to gain from the integration process, but if the national structure is inherently resistant to structural changes necessary to correct domestic instability, these countries are going to be least likely to exhibit the ability to stabilize under the pressures of international structural changes. High rates of inflation will be to the detriment of countries entering into the integration process.

Change in the variable M/GNP is predominately intended to measure long run changes that arise from a change in attitudes and anticipation concerning economic stability and financial structure security.

"Other things being given, the relationship between the demand for money and the rate of expenditures is positive. The greater the expenditures are, the more money is needed to make them...The direct relationship between the demand for money and Y is frequently ascribed to the transactions motive for holding money. By this we mean 'the need for cash for the current transactions of personal and business exchanges.' Another motive for holding money that is generally assumed to depend on the level of income and output is the precautionary motive. This refers to the 'desire for security as to the future case equivalent of a certain proportion of total resources.' These funds presumably are held to meet unforeseen contingencies. The greater the level of expenditures, the greater is the demand for money to hold for precautionary purposes." (Klein, p. 373-374)

Expected future income increases have the opposite effect on M/GNP than expected or anticipated stability, but for the Latin American nations which have been generally so influenced by price changes, this first effect is hypothesized to be outweighed by the influence of anticipated stability, and the higher the variable M/GNP would seem indicative of

those countries best able to produce an atmosphere of stability and security for the investor.¹⁶

M/GNP was averaged over the preceeding four years, as were the other structural variables, to reflect structural change in velocity based on long-term financial changes or monetization of the economy stemming from development of the financial structure's alternatives to money and the anticipation concerning the stability and security of those assets, and the resulting effects on the national growth.

The percent change in the Consumer Price Index ($\% \Delta \text{CPI}$) was designed to have the same type of purpose as the M/GNP, measuring a long-run tendency for the economy to have structural inflation. Again, like M/GNP, this variable is not designed to be a deflator, rather it is designed to be a structural variable. The $\% \Delta \text{CPI}$ was used to indicate changes and pressures in the economy stemming from sources other than the money supply or cases where increases in the M/GNP ratio developed in countries with low inflationary tendencies. The consequences of inflation related to changes in the price structure were effectively summarized by Mikesell in *Inflation in Latin America* (see Table VI). The validity of his summary is immediately questioned, however, when he suggests that "While there is considerable justification

16. Klein is probably referring to the developed countries, where M/GNP has been dropping and the countries have been experiencing an accelerated growth rate. This has been accomplished with extensive alternative to the traditional banking system that the developing and underdeveloped countries do not possess as viable alternative to financing. There has been an increase in other financial ratios, an event that Latin America has not in general experienced.

TABLE VI.
The Consequences of Inflation

The adverse consequences of inflation for economic and social progress arise mainly from its effects on the price structure, including relative prices of commodities, services, interest rates, and foreign exchange, and from the measures taken by governments to offset certain effects of inflation. We may summarize some of the standard charges made against inflation as follows:

1. Inflation discourages savings, and the savings that do occur tend to be channeled into inventory speculation, residential and apartment buildings, land, and foreign exchange, rather than into productive industry and agriculture.
2. Shifts in relative prices and in cost-price relationships tend to depress certain industries, such as agriculture, public utilities, and mining, in favor of high-cost industries directed to the production of import substitutes. The price and cost distortions which occur with inflation are in considerable measure due to government price controls.
3. For certain industries at least, increases in wages and other costs, including the cost of imported commodities, rise faster than output prices and therefore reduce profits and the attractiveness of the industries to investors.
4. Government controls over interest rates charged by banks and other financial institutions during inflation results in negative real rates of interest and a rationing of credit which usually results in a misallocation of capital funds.
5. Inflation almost invariably results in overvalued exchange rates with the result that production for exports is discouraged and production for domestic use occurs in industries for which the resources of the country are poorly designed.
6. The government's attempts to limit foreign exchange deficits by a variety of import controls further distort the price structure, and this, in turn, contributes to a misallocation of resources.
7. Inflation discourages foreign investment since it (a) creates uncertainties with respect to cost-price relations; (b) leads to an erosion of working capital and to losses resulting from exchange depreciation; and (c) leads governments, as a consequence of the foreign exchange deficits which accompany inflation, to put restrictions on transfers of such profits as foreign investors are able to earn.

(Nisbet, p. 171)

for all of the above alledged consequences of inflation, experience differs from country to country..." This in fact is one of the hardest relations to estimate or establish, the relationship between the national product and the price increases that a country experiences. The evidence produced by looking at the cross-section of experience that the Latin Nations have produced is completely inconclusive. Table VII relates the average real growth rate experienced by the LACM members and the average rates of their inflation. Brief review of the table indicates the diverse impacts that inflation has had on various countries' ability to experience real growth.

Although the experience of the individual members has differed, particular problems can be assessed with inflation when viewed in connection with the integration process. The following reasoning presented by Mikesell forms an excellent basis of the anticipated relationship between integration, inflation, and the national growth rates.

"Inflation coupled with overvalued exchange rates and a variety of governmental controls and import restrictions has created in Latin America 'closed' economies whose level and structure of internal prices and costs bears little relationship to that of the outside world, including those of the other Latin American economies. The irrational pattern of import restrictions and of import substitution makes for higher costs and low productivity, so that there is little opportunity to develop industries capable of competing in world markets. At the same time the import restrictions imposed by Latin American countries make difficult or impossible the development of intra-Latin American markets by those industries in individual Latin American countries that have an actual or potential comparative advantage in producing for a Latin American market.

TABLE VII.

Average Real Growth and Inflationary Rates Experienced
by LACM Members, 1954 to 1971

Country	Average Growth Rate	Inflationary Rate
Argentina	3.67	26.4
Brazil	6.83	32.5
Chile	4.19	30.4
Colombia	5.03	9.8
Ecuador	5.14	2.9
Mexico	6.31	5.3
Paraguay	3.83	26.9
Peru	5.31	9.0
Uruguay	1.11	26.3
Venezuela	6.85	1.5
Costa Rica	5.61	2.5
El Salvador	4.84	2.6
Guatemala	4.87	1.2
Honduras	4.87	1.2
Nicaragua	5.83	4.1
High Inflation, High Growth Brazil	6.83	32.5
Low Inflation, High Growth Venezuela	6.85	1.5
High Inflation, Low Growth Uruguay	1.11	26.3
Low Inflation, Low Growth El Salvador	4.84	2.6
LACM Average Inflation, Growth	4.95	12.37

Thus the proposed Latin American Common Market is incompatible with existing 'closed' economies. At the same time 'open' economies and free trade, even within the Latin American framework, are incompatible with the existing balance-of-payments disequilibriums. If balance-of-payments equilibrium is achieved by Latin American countries, it cannot for long be maintained in the face of high rates of inflation. Moreover, given the differential rates of inflation that characterize the Latin American countries today, relatively free intra-Latin American trade could not survive. In summary, inflation will constitute a major barrier to the actual establishment of a Latin American Common Market and a threat to its existence should reasonably free intra-Latin American trade ever be established." (Nisbet, p. 175-176)

The countries that most exhibit stability through a low Δ CPI or an increase in M/GNP will be the countries that will best be able to respond to the imposed changes of economic integration.

5. Market Indicators

Population was included to indicate market potential. Countries with larger populations are able to take advantage of economies of scale to a certain degree on their own, as an isolated market. From a growth standpoint, these countries have an advantage over countries with smaller populations in that they have a larger market demand. However, from an integration standpoint, those countries with smaller populations can expect larger gains from integration and the "opening-up" of markets that integration presumably brings. This is an extremely simplistic approach, which makes no statement about distribution of income, and can only be used as an elementary

approximation of market capacity.

Trade distance should be approached with the same frame of mind as population. The trade distance was constructed as the average distance from each country's capital to each of its trading partner's capitals along the most used commercial route. It was felt that the description of trade route availability would give an indication of the proximity of a country's trading partners as dictated by the physical constraints facing each country. The proximity of trading partners was valuable in giving an indication of the potential change in existing trade patterns given free trade. Countries with extremely large trade distances may be at a physical disadvantage that may be considered permanent in the sense that even given perfectly free trade (through economic integration), they may not be able to increase intra-regional trade because of the diseconomies of transportation.

The preceding discussion of national economic characteristics has outlined the relationships between the characteristics and the national growth rate, as anticipated by the application of standard economic theory. To summarize, these variables fall into the broad categories of injections, financial structure, inflation indicators, and market potential. When combined, these variables create the basic model used for analysis.

III. METHODS OF ANALYSIS

A description of the historical conditions and economic constraints that fostered economic integration in Latin America was provided in Chapter I. Chapter II presented a summary of the concepts of economic integration necessary to understand the relationship of the national characteristics to the growth rate, given the interaction of economic integration with the individual national economic structures. As applied to the Latin American situation, a hypothesis was formulated to consider the possible impacts of the integration process to the individual countries of the integration unit. The hypothesis specifically formulated to test the propositions of concern in this thesis is:

Hyp: The result of economic integration is not unpredictable to a country involved in the integration process, given certain characteristics of the national economies of the countries involved in the integration unit.

The balance of Chapter II contained the theoretical basis of the variables selected to describe the economic structure of a country.

Broadly these included the injections variables, financial structure, inflation indicators, and market potential.

The basic characteristics presented for consideration in this analysis describing the national economic structure can be presented as a national structural demand identity:

$$1 = 1 - a_1 - a_2 BA/Y + I/Y + G/Y + (EX - IM)/Y$$

In those sectors thought to be most significantly influenced by the

economic integration process, and in an attempt to account for other aspects of national activities which might significantly influence the national growth rate, a model was developed to include the following variables and was expressed as a function of national growth rate:

$$\% \Delta \text{GNP} = f(I/\text{GNP}, DI/\text{GNP}, G/\text{GNP}, F/\text{GNP}, E/\text{GNP}, E_1/E, \\ BA/\text{GNP}, FA/\text{GNP}, \% \Delta \text{CPI}, M/\text{GNP}, Td, Mk)$$

This model was designed not only to quantitatively measure the national characteristics of a country, but also to enable an evaluation of the possible impact of economic integration on the growth rates of the individual countries. In order to effectively evaluate this impact, a method for determining the relative importance and actual effect of each variable on the national growth rate had to be determined.

The purpose of Chapter III is to present the methodology of the analysis and to lay the logical framework upon which the particular method was chosen. It was believed that for a first approximation, a simple linear regression analysis would provide an estimate of the relative importance of the various components of the equation in explaining their role in determining the national growth rate. A single nonlinear regression equation or a set of simultaneous equations were considered during the process of model formulation, but these were thought to lead to complexities beyond the scope of this study for initial first approximation of the relations involved. The basis for choosing regression as a tool and the precise linear regression method will be described. In addition, the statistical difficulties of using

linear regression as applied to this particular data will be presented, along with the methods used to attempt to reduce the weaknesses of this method. Finally, the statistical problems connected with the data will be discussed.

A. Regression Model

1. Basic Model

A basic function has been established to describe the impact of national characteristics on the national growth rate. The purpose of this section is to establish the relative importance of these variables in describing the national rate of growth, and to establish the accuracy with which this can be done.

The following leads to the specific regression equation established for purposes of this analysis:

$$Y = a_0 + \sum_{i=1}^{12} a_i X_i$$

where

$$Y = \% \Delta \text{GNP}$$

X_i = the twelve structural variables presented in Chapter II.

(I/GNP, DI/GNP, G/GNP, F/GNP, E/GNP, E_1/E , BA/GNP,

FA/GNP, $\% \Delta \text{CPI}$, M/GNP, Td, Mk)

This lays the foundation for describing the effect or relative importance of the independent variables used in establishing an estimated value of the national growth rate. The other aspects of the

hypothesis, those concerning the impact of economic integration on the national growth rate, given the national economic structure that describes the Latin American countries, leads to the following:

$$Y = a_0 + \sum_{i=1}^{12} a_i X_i + a_{13} D_I + \sum_{i=1}^{12} a_{13+i} X_i D_I$$

where

Y = %ΔGNP

X_i = structural variables

D_I = dummy variable for integration, 1 = before and 0 = after

The dummy for integration (D_I) variable independently is designed to measure whether the act of economic integration, not through its influence on the other variables in the national economic structure, but as an independent variable, in and of itself, has a direct effect on the national economic growth rate. The integration variable "crossed"¹⁷ with the structural variables ($D_I X$) was included in order to establish whether or not the integration process alters the relative importance of the variables of the national economic structure in explaining the national rate of growth. By including the ($D_I X$) terms in the equation, where $D_I = 0$ before integration and $D_I = 1$ after integration, two equations can be generated to separately determine the effects of integration on each independent variable's impact in describing the national growth rates. Without these terms in the regression equation, only the independent effects of economic integration on

17. "Crossed" in this regression analysis means multiplied by.

the national growth rate would be present in the analysis. The specific mechanical relationship of the X_i to the $X_i D_I$ term is established in Appendix C.

The basic equation above was considered as a foundation for analysis of the hypothesis presented. Other adjustments stemming from technical problems that arose over the duration of the analysis were introduced. They included inserting dummy variables for each country, a dummy variable to distinguish between the two integration units under analysis, a dummy variable to separate the countries that have experienced hyperinflation from the rest of the community, and two current price deflators (the percent change in the Consumer Price Index and percent change in the Money Supply). Of those variables considered, the ones which were used, when added to the basic structural equation, complete the final form of the regression equation considered for analysis. This equation is presented in Table VIII. Those variables which have been added to the basic equation are discussed to present their role and justification in the analysis and introduce problems and limitations that are associated with their use.

2. Dummy Variables

One of the first aspects of this analysis that must be considered when the problem of measuring the impact of economic integration is approached practically, is the foundation for the variable D_I , the dummy for integration, which was designed to measure whether a

TABLE VIII.

Regression Model

$$Y = a_0 + \sum_{h=1}^2 (a_h W_h) + \sum_{i=1}^{12} (a_{2+i} X_i) + \sum_{i=1}^{12} (a_{14+i} X_i D_i) + a_{27} D_I + a_{28} D_S + a_{29} D_P$$

$Y = \% \Delta \text{GNP}$ = Percent change in
National Product

$W_1 = \% \Delta \text{CPI}_{\text{Current}}$

$W_2 = \% \Delta M_s_{\text{Current}}$

D = Dummy variable for integration

1 = before integration

0 = after integration

D = Dummy variable for integration
unit

1 = LAFTA

0 = CACM

D = Dummy variable for high inflation

1 = countries with low
inflation

0 = countries with high
inflation

X_1 = I/GNP Gross domestic investment/GNP

X_2 = DI/GNP Direct investment/GNP

X_3 = G/GNP Government expenditures/GNP

X_4 = E/GNP Exports/GNP

X_5 = E_1/E Primary exports/Total exports

X_6 = F/GNP Trade balance/GNP

X_7 = BA/GNP Commercial Bank Assets/GNP

X_8 = FA/GNP Foreign Assets at commercial banks/GNP

X_9 = M/GNP Money Supply/GNP

X_{10} = $\% \Delta \text{CPI}$ Consumer Price Index (lagged t-1 to t-4)

X_{11} = Mk Market size (population)

X_{12} = Td Trade distance (average to trade partners)

country was integrated at any one point in time. The application of the ECLA Doctrine referenced above is evidenced by the Treaty of Montivedeo (LAFTA) and the Managua Treaty (CACM). The only change toward economic integration that actually took place in the member countries on these dates, however, was one of commitment to future changes in the external relations of the countries involved. The LAFTA treaty was being ratified by members from 1960 to 1967, the CACM treaty from 1960 to 1963. The 1960 draft date of the treaties could only be tested for effects on the economy from an *anticipation* point of view. Actual changes in restrictions were evidenced to varying degrees by all members, from the date of their ratification on. The only actual change in external relations that can be attributed to the ratification, however, is one of *commitment*. Effective *changes* in external relations and therefore any significant impact on growth from economic integration's impact on the national economic structure took several years to be manifested. For this reason, the before and after integration periods chosen for the analysis presented in this paper are 1950 to 1966 as before and 1967 to 1971 as after. The selection of the 1967 date as the first year of the post integration period (for both integrating units) was considered justifiable by the following reasoning.

The 1960 to 1966 period is included in the before integration period. Although it is after the treaties were signed in most cases, the process of implementation of shifts of restrictions on external relations was so tedious and complex that it took several years for

much of the agreements to be put into effect.¹⁸

By 1967, 95% of the items listed on tariff schedules between the CACM countries had no trade restrictions. Also in 1967 negotiations for the common list, the means by which the Latin American countries agreed to reduce their trade restrictions, were halted and the common list continues to stand in its 1966 status (Krause). Since that time alternatives to negotiating tariff reductions through the common list have centered around formation of the Latin American Common Market proposed at the Punta del Este meeting of the Presidents of the American States (1967). It was considered that for practical purposes the trade restrictions that existed in 1967 would not be significantly changed further and that a considerable change had taken place in the restrictions, such that integration had occurred. That date is therefore chosen as the initiation of the after-integration period.¹⁹ Both the LAFTA and the CACM had reached plateaus in the progress that they were making toward integration. These plateaus were taken to signify the beginning of the after integration period.

The dummy variable to distinguish between the economic integration units, the LAFTA and the CACM, was introduced to ensure that there was

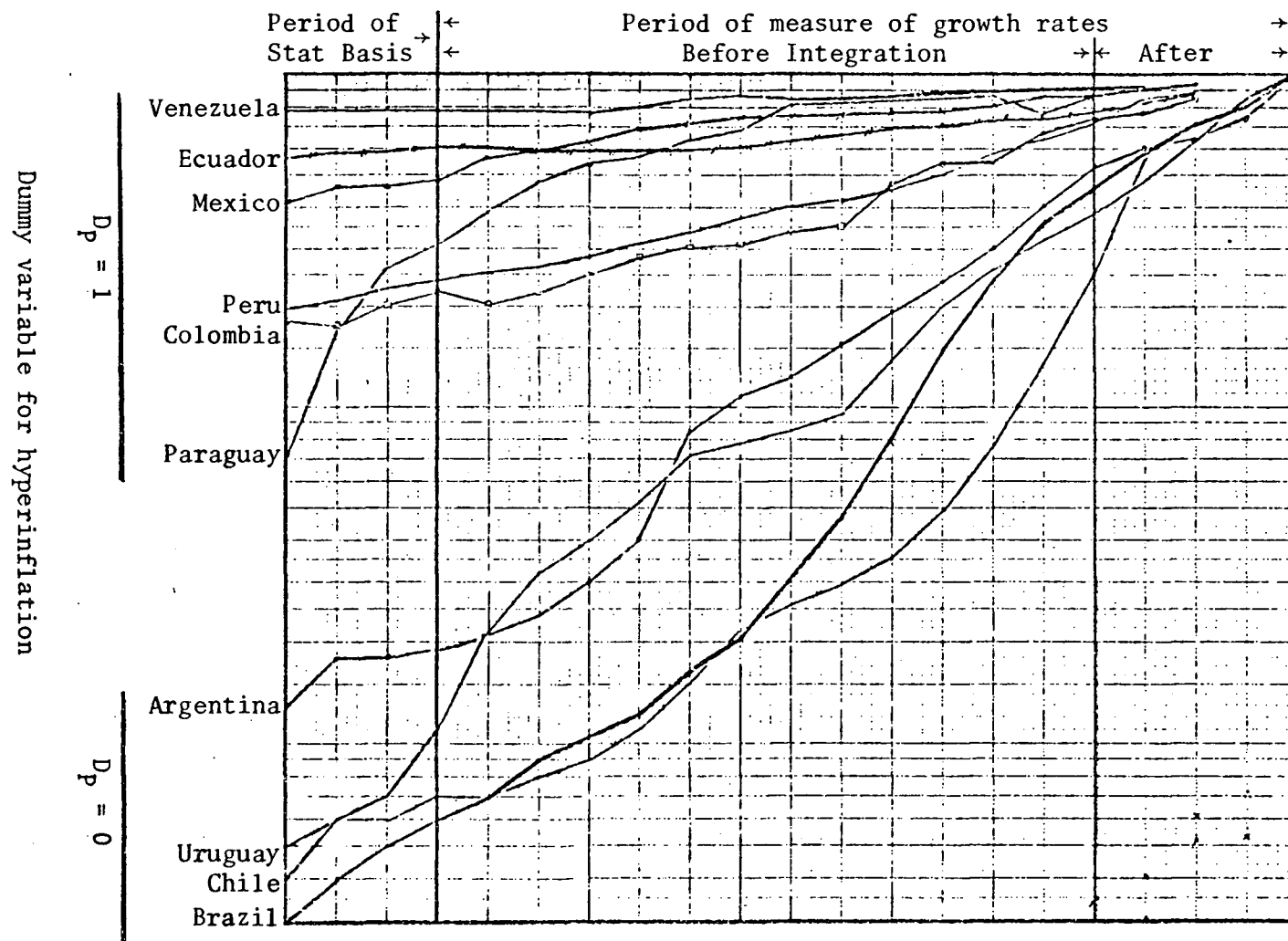
18. To ensure that significant anticipation reactions were not generated by the actual signing of the agreements, affecting the growth rates of the members, a before and after integration test was checked using the actual dates that the integration treaties were signed by each member. No significantly different results were recorded.

19. There is the danger when using one date for all countries that other events, rather than economic integration, are being measured in tests performed.

no significant bias introduced into the analysis because of any systematic differences between the two integration units which may not be explained by other variables. There was some concern for the size of the total units under analysis and the difference in the sizes of the countries of the two units, with the Central American countries being of significantly different size than the South American countries. It was considered that this dummy variable would account for these size differentials as well as for any differences in degree of integration achieved by the two units.

Finally, a dummy variable to account for differences in the structural variables' impacts on the national growth of countries experiencing widely different rates of inflation was included when preliminary tests showed that the inflationary indicators presented as part of the national economic structure were not adequately accounting for current inflation. Analysis revealed that the magnitude of differences in the inflation rates between countries was causing heteroscedasticity when the variances of the residuals were compared by country. A dummy variable to account for hyper-inflation in certain economies based on the historical experience of the Latin American countries was included when differences in their inflationary rates appeared significant enough to warrant inclusion. This dummy variable (D_p) was constructed based on the experience of the countries as shown in Figure 3, which clearly points to four members (Argentina, Brazil, Chile and Uruguay) which exhibited extraordinary inflation.

Graph 3. Consumer Price Index (1971 = 100)



3. Current Price Deflators

The two measures chosen as current deflators, the percent change in the consumer price index ($W_1 = \% \Delta CPI_C$) and the percent change in the supply of money ($W_2 = \% \Delta Ms_C$), unlike the structural variables, were introduced on a current basis to measure more accurately the systematic differences introduced into the analysis from countries that have experienced extremely different rates of inflation annually to such a radical degree that the four year average of the inflationary indicators introduced with the structural variables tended to distort the current values of the growth rates estimated in the regression analysis.

As mentioned in Chapter II, the best approach would have been to undertake the complete analysis with the real value statistics, but because these were unavailable, it was considered the most consistent approach to measure all of the information in current values. The inflationary indicators introduced at that time were to measure the affect on a country's growth of that country's tendency to exhibit inflationary pressures. The two indicators that are introduced here are to correct for differences that exist in the statistics because the current value figures were used, and the use of these figures raised a bias for certain countries.

B. Method of Regression

The approach taken to analyze the equation for this study was to initiate a regression estimation of national growth rates with all variables included in the analysis. Table IX (equation 1) presents the estimated coefficients and statistical description of the equation generated from this ordinary least square analysis. There are before and after integration equations (1a and 1b, respectively) which were calculated through decoding the least square estimation generated from the regression of the basic model established and described above in Table VIII. The method of decoding the coefficients is described in detail in Appendix C, where an example is given of the method used. Basically, the structural variable (X_i) and the structural variable times the dummy for integration ($X_i D_I$) jointly establish the affect of that variable in both the before and after integration equation.

Next, the generation of a significant equation for the estimation of the national growth rates of the Latin American countries was considered (also presented in Table IX as equation 2a and 2b). Significance was based on criteria that included an overall check for validity of the regression analysis performed and an elimination from the equation those variables that were considered to be statistically insignificant or economically inconsistent with the theory presented in Chapter II. The method to insure the validity of the overall regression analysis is presented and discussion of the significant estimated equation

TABLE IX.
Estimated Equations

	Inflation Indicators				Injections Variables					Liquidity Variables			Structural Variables		Dummy Variables	
	Current		Structural		Domes. Invest.	Govt. Expend.	Direct Invest.	Primary Exports	Trade Balance	Commercial Bank Assets	Foreign Assets at Commercial Banks	Money Supply	Market Size Population	Trade Distance	Country D ₀	Integ. D _i
	% GNP = Constant	Consumer Price Index	Money Supply	Consumer Price Index												
	Y = a	%ΔCPI	% M	%ΔCPI _L	I/GNP	G/GNP	E/GNP	DI/GNP	E ₁ /E	F/GNP	BA/GNP	FA/FNP	M/GNP	Mk	Td	
<u>All Variables</u> R ² = .707 F = 20.02 (29,240)																
<u>Before Integration</u>																
1a	Y = -17.536	+ 0.663	+ 0.113	+ 0.095	- 0.063	+ 0.054	+ 0.092	+ 0.093	+ 0.006	- 1.440	- 0.148	- 0.476	+ 0.470	+ 0.003	+ 0.007	+ 17.956 - 0.5i
<u>After Integration</u>																
1b	Y = -17.586	+ 0.663	+ 0.113	+ 0.822	- 1.951	- 2.908	+ 1.555	+ 5.821	+ 0.030	- 0.707	+ 0.307	+ 0.492	+ 2.049	- 0.030	+ 0.056	+ 17.956 - 0.6i
<u>T - Values</u>																
	(1.29)	(8.40)	(1.55)	(4.68)	(2.47)	(3.13)	(2.69)	(2.06)	(0.28)	(0.79)	(0.63)	(0.86)	(2.48)	(3.07)	(2.91)	(0.16)
				(3.96)	(2.18)	(2.88)	(2.33)	(1.95)	(0.30)	(0.78)	(0.86)	(1.53)	(1.73)	(2.64)	(2.41)	(1.19)

<u>Significant Variables</u> R ² = .700 F = 32.59 (18,251)																
<u>Before Integration</u>																
2a	Y = + 0.063	+ 0.670	+ 0.123	+ 0.100	+ 0.023	+ 0.137	+ 0.010	+ 0.001					+ 0.167	+ 0.003	+ 0.003	
<u>After Integration</u>																
2b	Y = + 0.063	+ 0.670	+ 0.123	+ 0.695	- 1.981	- 2.553	+ 1.110	+ 5.413					+ 2.037	- 0.023	+ 0.038	
<u>T - Values</u>																
	(0.02)	(9.10)	(1.81)	(4.99)	(2.92)	(3.03)	(2.73)	(2.28)					(3.16)	(3.21)	(2.99)	
				(4.01)	(2.67)	(2.92)	(2.42)	(2.18)					(2.77)	(2.83)	(2.41)	
<u>F - Values¹</u>																
		(82.78)	(3.26)	(13.04)	(4.27)	(4.71)	(3.74)	(2.60)*					(5.08)	(5.22)	(4.62)	

1. All F-values are significant at the 5 percent level, except those marked with an asterisk (*) which are significant at the 10 percent level.

established (equation 2a and 2b) constitute the results of the least square analysis performed.

In the first analysis, all of the variables were included to check for possible statistical inconsistencies in the variables under consideration. The overall significance of the variables' capability of estimation of the growth rates was checked by the use of the F-value for all entering variables, $F = 20.02 (29,240)$, which was significant at the 99% confidence level. This and an overall $R^2 = .707$ provided the foundation for the judgment that linear regression was a valid technique and that an economically and statistically significant equation could be generated. T-values (and paired departing F-values, as explained in Appendix C) generated for each coefficient in Table IX were used for the foundation for eliminating those variables considered to be statistically insignificant.

Before that step was taken, however, a correlation matrix of all of the variables was generated, Table X, to analyze the possibility of multicollinearity existing in the independent variables used in this study. Review of Table X indicates that multicollinearity created no problems of significant concern. The highest r-value registered between the structural variables, those variables which were considered as potentially generating strong relationships because of their complex interrelations in the national economies, was $r = .775$, which existed between the M/GNP and BA/GNP variables. The r-matrix presents only those values between the structural variables, current price deflators,

YTYCPH-7

Structural X Dummy				Dummy				Structural Variables				Current			
$(X_1 D_T)$								(X_1)				(W_1)			
W	I/GNP	G/GNP	E/GNP	E ₁ /E	F/GNP	Td	BA/GNP	FA/GNP	M/GNP	%GPI	DI/GNP	Mk	D ₁	D ₂	
%GPI	.736	-.007	.210	-.497	-.043	-.017	.356	.471	-.456	.385	.620	-.075	.376	.046	.710
W	-.048	.281	-.431	.022	.025	.356	.393	-.456	.242	.578	-.060	.331	-.102	.640	
I/GNP															
G/GNP	.261														
E/GNP	.424	.308													
E ₁ /E	.074	.382	.345												
F/GNP	.246	.335	.336	.597											
Td	.202	.015	-.461	-.118	.219										
BA/GNP	.125	.308	-.386	-.181	-.156	.232									
FA/GNP	.250	.018	.445	.353	.498	-.053	-.368								
M/GNP	.313	.298	-.292	-.000	.133	.224	.775	-.019							
%GPI	-.117	.144	-.504	-.103	.002	.407	.320	-.353	.244						
DI/GNP	.278	.027	.215	.016	-.054	-.054	-.110	.109	-.032	-.058					
Mk	.124	.006	-.528	-.115	.069	.470	.303	-.055	.499	.354	-.075				
D ₁	-.102	-.062	-.173	-.026	.120	.040	-.000	-.077	.151	.057	-0.21	.021	-.083		
D ₂	.640	-.112	.282	-.607	.014	.025	.373	.639	-.356	.517	.653	-.069	.414	.000	
I/GNP	-.094														
G/GNP	-.019														
E/GNP	-.322														
E ₁ /E	-.102														
F/GNP	-.034														
Td	.171														
BA/GNP	.152														
FA/GNP	-.405														
M/GNP	.042														
%GPI	.366														
DI/GNP	-.072														
Mk	.292														
	.673	.067	.223	-.415	-.031	.021	.336	.414	-.424	.345	.616	-.029	.314	.617	

and the dummy variables. Listing of the structural variables' relationships with themselves crossed with the dummy variable for integration was considered to be basically repetitive of the information presented (as was the relation of the $X_i D_I$ to $X_i D_I$ variables).

Autocorrelation, considered to be a problem in time series studies, appeared to be at a minimum in this analysis because of the considerable use of the variables in the form of ratios. The residuals were evaluated for possible bias and the situation that existed creating heteroscedasticity was eliminated by the inclusion of variables discussed above in the form of the two linear deflators and the dummy variable for distinguishing between those countries that have experienced hyperinflation and those countries that have experienced only moderate inflation. After these variables were introduced, the residuals were tested for variance by country and by year with only Uruguay in 1968 standing out as having possible significant variance from the other estimated growth rates or residuals of the other countries for the other years. It is believed that this is due to the extreme hyperinflation that existed in Uruguay in 1968 leading to a current-value growth rate of 100 plus percent. The continued inclusion of this statistic in the analysis was maintained to indicate the breadth and scope that this analysis is capable of estimating. The evidence suggests that all significant bias in the residuals has been eliminated except for the variance caused by Uruguay in 1968, a statistic considered to be an outlier and that the variance is not from

heteroscedasticity forming a systematic bias in the error terms. Therefore it was considered valid to leave this statistic in the analysis. As also mentioned above, the variables were constructed on a four year moving average from $t-1$ to $t-4$ and it is assumed that this method of construction of the variables eliminated any significant problem arising from identification of cause and effect in the equation. With these factors in mind, the overall regression analysis was considered to be valid and the process was undertaken to select the individual significant estimated equation for the before and after integration periods of the growth rates of the Latin American countries. The results of these are presented below.

The most instructive equation for establishing the effects of integration on the economic structure and the implications of integration affecting the national growth rate are presented in Table IX (equations 2a and 2b).²⁰ There are two bases for not including variables from the overall regression in what will be termed the significant estimated equation: statistical significance and economic significance. Statistical significance was initially determined by the T-value of the coefficient of the variable established in the original equation with a check presented in the form of a significant paired F-value for the structural variable and the structural variable crossed

20. Alternate techniques concerning the estimation of this equation were attempted, but they must be considered as yielding no significantly different results within the framework of the basic criteria used for establishing the results.

with the dummy. The economic basis for establishing significance would primarily be involved with questioning those variables considered to be theoretically misrepresented in this estimated equation. Of primary concern is that the variables show the correct sign with respect to the theory, although the magnitude of the coefficients becomes a measure of considerable importance in this study. The statistical and economic considerations are discussed jointly because of the nature of the methods used in analysis. A unique situation arises which must be understood before interpretation of the estimate of the coefficients can be presented.

The structural variables (I/GNP) and (M/GNP) can be used to exemplify the problems encountered when interpreting the coefficients. In the original equation generated from the regression analysis, unadjusted for the dummy variables, the coefficients for the variables used in this example were as follows:

$$a_3 \text{ for I/GNP} = -1.987 \quad t = 2.92$$

$$a_{15} \text{ for (I/GNP) } (D_I) = 2.010 \quad t = 2.67$$

$$a_{11} \text{ for M/GNP} = 2.037 \quad t = 3.16$$

$$a_{23} \text{ for (M/GNP) } (D_I) = -1.870 \quad t = 2.77$$

where $D_I = 1$ before integration and $D_I = 0$ after integration. Calculation of the before and after coefficients for the M/GNP variable yields $+1.167$ M/GNP for before and $+2.037$ M/GNP for after integration. Theoretically, there should be a positive relationship between the M/GNP and the $\% \Delta \text{GNP}$ as expressed in Chapter II. Calculation of the

before and after integration coefficients for the I/GNP variable yields +.023 I/GNP for before and -1.981 I/GNP for after. The after integration coefficient has a wrong sign, and should be rejected from the significant estimated equation because of economic considerations. This cannot be done, however, without eliminating as a variable the I/GNP in the before integration equation, a variable with both a correct sign and a significant paired F-value (at the 5%). Also, both of the coefficients of the original regression equation had significant t-values (2.92, 2.67) so there would be no statistical grounds for manipulation of the variables by dropping one or the other to generate the desired sign in one of the two equations calculated, leaving the variable out of the other equation. For this reason, variables that appear to have the wrong sign in one of the equations, the before integration or the after integration, but that could not be removed from the significant estimated equation without removal of another statistically significant variable that had the economically correct sign and magnitude, were not dropped from the significant equation (2).

C. Analysis of Results

In summary, equation (2) in Table IX has the following characteristics. First, the overall F-value [$F = 32.59 (18, 251)$] is significant at the 99% confidence level and the equation has an $R^2 = .700$.

Second, the coefficients of the significant variables have correct

signs when evaluated against economic theory (or they cannot be practically dropped from the equations, as shown above). Finally, the coefficients of the variables are significant at the 95% confidence level (except the DI/GNP variable, which is significant at the 90% confidence level).

These characteristics constitute the technical considerations that were established to measure the validity of the equations generated for the analysis. The next aspect of the analysis is to examine the integrity of the estimation of the coefficients and the resultant estimation of the national growth rates. This will create the foundation for presentation of possible conclusions of the thesis. Although most of the coefficients are significant in a technical sense, the overall meaning of the equations must be clearly understood to prevent the possibility of faulty conclusions being drawn on the information presented.

Table XI is introduced to facilitate the investigation into the logical nature of the equations generated to estimate the national growth rates. Table XI presents the before and after integration mean values for each country of the variables included in the significant estimated equations (2 of Table IX). There is considerable variance in the observations that comprise these means and it must be emphasized that these values are presented only to establish a first approximation of the validity of the estimated equations and to point to possible problems that might exist in the equations or the data

Table XI.

Before and After Integration Mean Values of Significant Variables of Regression Analysis

	Argentina		Brazil		Chile		Colombia		Ecuador		Mexico		Paraguay		Peru		Uruguay		Venezuela	
Y	32.7	20.1	45.5	34.1	40.2	37.6	16.1	15.6	7.2	13.8	12.7	10.7	17.1	7.2	14.7	13.8	30.2	74.3	7.9	6.6
\hat{Y}	34.0		46.0	36.0	37.2	32.1	16.5	20.2	8.7	14.2	11.7	3.8	17.4	8.9	13.6	10.3	30.7	74.1	8.4	5.4
% Δ CPI	28.2	20.4	41.8	25.3	36.9	25.5	10.1	8.0	2.3	5.6	4.8	3.2	11.2	1.7	8.4	12.0	28.0	35.3	1.0	1.9
% Δ N	25.7	25.0	42.5	35.3	37.3	55.7	16.2	16.5	9.2	24.6	11.8	11.3	15.1	7.6	12.6	12.3	28.5	58.6	7.7	10.2
% Δ CPI _L	28.0	23.9	32.0	22.9	34.6	28.1	9.0	11.7	2.0	4.3	5.6	3.0	31.8	2.0	7.9	11.5	19.0	53.1	1.1	1.5
1/GNP	19.3	17.7	16.4	15.8	11.8	15.8	16.9	17.8	12.8	14.1	14.8	17.1	14.2	14.8	20.4	15.5	12.8	11.4	25.5	21.7
G/GNP	9.9	10.0	12.7	11.9	10.2	11.8	6.5	7.0	13.1	14.3	4.8	5.8	7.8	7.9	8.9	11.2	10.3	14.2	14.2	14.4
E/GNP	8.9	8.8	7.2	7.7	10.9	15.3	14.7	12.5	19.0	20.1	13.1	9.5	15.1	13.3	21.4	19.5	12.1	14.8	35.6	31.7
DI/GNP	0.9	0.9	1.0	0.6	1.5	0.3	0.3	0.8	0.9	2.0	1.0	0.7	0.8	0.7	2.0	-0.1	0.7	0.6	1.8	0.6
M/GNP	23.3	19.0	24.4	20.9	9.1	10.4	15.7	15.8	12.4	14.0	12.0	12.7	9.1	9.6	12.1	10.7	17.6	15.5	15.3	15.2
Mk	207.3	293.1	701.5	908.4	71.9	95.6	155.1	204.8	43.8	47.1	362.8	489.9	17.8	23.1	102.2	131.8	25.4	28.5	74.0	99.9
Td	395.9	395.9	409.9	409.9	340.7	340.7	348.2	348.2	340.7	340.7	526.9	526.9	462.6	462.6	334.3	334.3	382.6	382.6	393.2	393.2
Y-Real																				
Y AID	3.4	4.5	6.1	8.8	3.9	4.5	4.5	5.6	4.5	6.1	6.4	6.2	3.7	5.0	5.8	4.2	1.1	1.6	7.4	4.6
Y/% Δ CPI	4.4	0	3.3	8.8	3.1	9.6	5.8	7.1	4.9	7.8	7.2	7.2	5.0	5.4	5.8	5.9	1.5	1.5	6.7	6.8
Y ECLA	2.4	4.3	4.7	8.6	3.6	3.9	4.0	5.7	4.0	6.0	5.6	6.1	3.0	5.3	5.5	4.3	0.4	3.4	5.9	4.7
\hat{Y} Calc. Estimated	5.2	-3.3	5.6	-1.1	3.6	-11.4	4.2	4.7	3.8	4.3	4.5	-1.8	3.3	5.5	4.7	-7.3	3.4	6.3	4.1	1.8

Table XI. (continued)

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		LACM	
Y	7.2	10.9	5.9	5.0	5.0	8.3	5.1	6.3	6.6	8.0	16.9	18.0
\hat{Y}	7.2	5.5	5.9	12.8	4.5	3.1	4.9	10.2	6.5	7.5	16.9	18.3
% Δ CP1	1.9	3.1	1.0	1.4	0.4	1.3	1.0	2.1	2.1	3.9		
% Δ M	6.1	18.4	3.3	5.8	6.4	3.4	4.8	10.3	7.6	2.6		
% Δ CP1 _L	2.1	1.8	2.2	0.9	0.8	0.7	0.8	2.1	3.6	2.5		
1/GNP	17.5	20.6	12.9	13.7	11.1	13.1	13.5	16.4	15.1	17.7		
G/GNP	10.6	13.8	10.4	9.3	6.9	7.6	8.9	9.7	8.6	10.5		
E/GNP	24.5	26.2	24.2	25.4	13.6	17.4	22.0	27.7	23.6	26.7		
D1/GNP	1.0	1.9	0.6	1.5	0.7	1.2	1.2	1.8	0.9	1.9		
M/GNP	15.9	17.5	15.2	12.4	10.9	10.4	9.6	11.1	11.5	12.3		
Mk	12.1	16.9	25.1	33.6	38.2	49.9	19.1	24.9	14.3	18.2		
Td	38.2	38.2	22.5	22.5	30.0	30.0	21.5	21.5	22.7	22.7		
Y-Real												
Y AID	5.0	7.4	5.2	3.9	4.8	5.7	4.3	3.4	6.1	4.3	4.8	5.1
Y/% Δ CP1	5.1	7.5	5.0	3.6	4.8	6.9	4.1	4.0	5.4	6.0	4.9	5.6
Y ECLA	4.7	6.7	5.0	3.7	5.8	5.0	5.5	4.2	6.3	4.1	4.4	6.9
\hat{Y} Calc. Estimated	5.2	-0.1	4.8	10.5	3.4	1.3	3.6	6.1	4.2	2.8	4.2	-2.1

used in the analysis. The means of the variables presented in Table XI can be used in discussion of three aspects of the equations presented in Table IX. These include the viability of the before integration equation, the impact of integration on the individual variables (the change in the variables from the before to the after integration equation), and third, the viability of the after integration equation.

First to be discussed is the before integration equation. The R^2 shows that 70% of the national growth rates can be described by the included variables, as appropriately weighted by their coefficients. Further, the signs and magnitudes of the coefficients generally agree with anticipated results. This can be shown in part by constructing real growth rates for Latin America for each country over the before integration period and comparing these to published values.

The mean estimated value of the current growth rate for the Latin American countries during the before integration period is 16.88%. Adjusting this amount by the coefficients of the inflation indicators (from Table IX) times the mean values of those variables, (from Table XI), yields an average annual real growth rate over this period. This is calculated for Latin America as a whole (4.2%) and for each country separately. The lower portion of Table XI provides the real growth rate as estimated by AID, the real growth rate calculated by dividing the gross national product by the consumer price index as reported by the International Monetary Fund, the real growth rate as estimated by

the ECLA, and the real estimated growth rate as calculated by the method described above. The estimated 4.2% seems reasonable when compared to the 4.4% (ECLA), 4.8% (AID), and 4.9% (IMF) obtained from these documented sources. The estimated real growth rate, where compared to the rates reported by the various agencies, lends credibility to the before integration equation.

The other explanatory variables in the equation may be viewed as explaining real growth. The relative magnitudes of their coefficients suggest that injections variables, financial variables, and market variables are of comparable importance in explaining growth. All of the variables in these latter categories, except trade distance, have the hypothesized signs.

It was originally hypothesized that trade distance, being a barrier to trade with the other countries, would be a detriment to expanding growth, but it might be recognized that the trade distance also measures the size of a country. The larger the distance is, the greater the country size. Larger countries would presumably have more resources, greater potential for domestic speculation, and other similar characteristics which are generally regarded as favorable in accelerating national growth.

Review of the real growth rates by country indicates that the overall results for the before integration estimates are realistic, providing an indication that the estimated equation for the before integration period adequately measures the national economic structure

that describes the growth rates of the LACM members.

Given equation 2a above, which describes the national growth rate, the impact of economic integration can now be examined. A significant change in the coefficients for the variables in equation (2) did occur with the introduction of the dummy for integration. This is evidenced by the paired departing F-values for the structural variables and the structural variables crossed with the dummy for integration (see Table IX). This implies that integration had a significant impact on the national economic structure. Changes in the coefficients of the variables establish how the effectiveness of the characteristics determination of growth is affected by the integration process. Analytical interpretation of the changes, however, must be evaluated carefully.

The two current price indicators have the same before and after integration coefficients. Being technical deflators and not descriptive of the economic structure, they were not crossed with the dummy for integration. Government expenditures (G/GNP), exports (E/GNP), and direct investment (DI/GNP) of the injections variables change in the anticipated direction as hypothesized in Chapter II. There is some concern, however, over the magnitudes of the changes when considering the validity of the after integration equation. Of the injections variables, investment (I/GNP) changed in the wrong direction. The significant financial variable, the money supply (M/GNP), changed in the anticipated direction, again with some concern over the

magnitude of the change. Of the market indicators, both trade distance and population changed in the anticipated direction. However, given the above changes in the coefficients, albeit most of them in the correct direction, the magnitude of the changes are believed to be unrealistic. The changes in the magnitudes of the coefficients when related to the average values of the variables (presented in Table XI) generated statistics considered to be unrepresentative of the national economic structure. Calculating real Latin American growth rates, for example, using the methods described above (using the data presented in Tables IX and XI) generates negative annual growth rates, figures unrepresentative of the growth of the LACM members during this period.

In summary, the regressions indicate that economic integration has a significant impact on economic growth. It has been shown that there is a national economic structure that significantly describes that national growth rate (before integration equation). There is clearly a significant impact imposed on the independent variables of the national economic structure for a country entering into the integration process. The variable representing economic integration independently (D_I) is not significant in explaining national growth in Latin America. Therefore it is not economic integration independently, but economic integration in conjunction with the national economic structure that affects national economic growth. The quality of the equation which yields questionable magnitudes of variables,

however, creates a situation such that specific results of economic integration cannot be determined. The final phase of this analysis cannot analytically be established through such statistical measures as significant R^2 or F-values, and further comment on this will be reserved for a more general discussion presented in the conclusion.

The significant national economic structure described by the before integration equation and significant impact of economic integration on that structure, as presented above, in essence enable the statement to be made that the major hypothesis of this thesis cannot be rejected. This statement is made, however, bearing in mind the excessive nature of the impacts on individual coefficients that integration yields, but also with full recognition of the strength of the two positive propositions presented above.

IV. CONCLUSION

Progress toward the formation of a Latin American Common Market has been significant. The creation of the Latin American Free Trade Association and the Central American Common Market in the early 1960's enabled a considerable increase of intra-regional trade compared to levels of trade achieved in the late 1950's. Increased intra-regional trade was one of the primary objectives established by the United Nations ECLA for the advancement of development in Latin America. A movement towards free trade in the form of intra-regional trade was designed to solve two problems that the Latin Americans faced in their development efforts. First, it was anticipated that increased intra-regional trade would decrease the dependence of the Latin American countries on primary commodities, commodities which generate unstable income from trade on inelastic world markets, and second, it was thought that increased intra-regional trade would provide expanded markets for manufactured goods. These goods had been restricted in regional trade because of increased feelings of nationalism which encouraged protection of developing industry and they had been restricted outside the region because of increased economic cooperation between the developed countries which prevented goods from outside their areas from being competitive on their markets. Intra-regional free trade has not completely brought the anticipated benefits.

The concepts of trade creation and trade diversion were introduced to evaluate the problems that certain of the members of the integration unit faced. It is the pattern of trade creation and trade diversion, generating cost savings to certain members of the integration unit and cost increments to other members of the unit, which initiated the possibility that the national economic structure might predetermine the impact of economic integration on members of the community. The ECLA analysis of the position of the relatively less developed countries in the Latin American Common Market highlights the role of the national structure in determining the impact of economic integration on those economies.

"The problem arises mainly from the great differences that exist in the structures and levels of economic development achieved by the Latin American countries and, therefore, from their ability to obtain real benefits from the opportunities offered by the expanded market...Owing to the shortage of technical and financial resources, insufficiency, or insufficient development of the infrastructure and the basic industrial structure, lack of entrepreneurial ability and of qualified manpower, and general limitations of available resources and capacity to mobilize them, these countries have lost economic potential. They are thus not in a position to take advantage of access to the markets of the other countries of the area offered by removal or lowering of import charges and to share effectively in the regional industrialization process being wrought by integration."
(United Nations, ECLA, 1967, p. 6)

The political attitude associated with the estimated benefits of economic integration dictated the various members' willingness to increase participation in the economic integration process in the form of agreeing to negotiating further tariff concessions. The degree of

concern of the relatively less developed countries, and special interest for protection of particular items of national concern by other members (arising from feelings of protectionism), effectively stopped progress toward lowering the restrictions to external transactions by 1967.

It was this combination of the ECLA focus on the national structure as the problem center for continued advancement of development from economic integration and actual slowdown in progress in 1967 of the economic integration process that laid the foundation for this study. A model that would enable a test of the foundation of the ECLA's hypothesis that national structures predetermine the impact of economic integration on national growth was developed using the leveling progress toward economic integration (1967) as the initiation of the after integration period.

Thus, it was the ECLA's analysis and the concerns of the relatively less developed countries that prompted the generation of the following hypothesis:

Hyp: The result of economic integration is not unpredictable to a country involved in the integration process, given certain characteristics of the national economies of the countries involved in the integration unit.

Based on the economic theory presented in Chapter II as applied to the regression model developed in Chapter III, this hypothesis was not rejected. However, certain reservations must be taken into

consideration in order to evaluate the true success of the analysis in fulfilling the objectives of this study.

A primary concern was to define a set of characteristics which describes the economic growth of the members of the integration units under consideration. The equation presented here to estimate the growth rates had an overall $R^2 = .700$ which was considered adequate. The variables of this equation provide the set of national characteristics and provide the framework upon which the other objectives are based. The method of analysis for investigation into the impact of integration on the national economy necessitated that two concurrent equations be generated from the same regression analysis. The 1950-1966 equation provided an economically solid, statistically sound description of the structure of the national economies of the Latin American countries involved in the integration process.

The before integration equation indicated that a description of the national growth rates of these countries is strongly influenced by the rates of inflation. Not only were the current consumer price index and percent change in the money supply significant, but the weighting of their coefficients indicated that they explain a large portion of the estimated growth rates. This was to be expected, as the analysis was undertaken using current values for statistics from the national accounts. The structural variables that would indicate the effects of the inflation that the Latin American countries have experienced on their respective national economies, the lagged percent

change in the consumer price index and the ratio of the supply of money to the gross national product, were also positively related to the national growth rates and were as important as the financial structure and the injections variables in explaining growth. These characteristics of the before integration equation correspond to anticipated results and reveal areas of importance in the national economic structure as it relates to a member's ability to experience growth of its national product.

Economic integration had an impact on the variables which were found to establish a description of the national structure. This significant description was found to include gross national investment as a percent of gross national product, government expenditures as a percent of gross national product, exports as a percent of gross national product, direct foreign investment as a percent of gross national product, money supply as a percent of gross national product, percent change in the consumer price index, market size, and trade distance. Questions of interpretation raised by comparison of the before and after integration equations lead to an inability to quantitatively suggest the specifics of the impact. The dummy variable for integration, by itself, was insignificant in describing the national growth rates in the analysis. Based on this it was concluded that integration independently has no significant influence on growth, and that it is only through its impact on the structural variables that integration significantly influences the growth of the national

economies. That is, it is not integration alone, but a combination of integration and other structural factors which explain the ability of a country to experience a change in growth, given economic integration. It appears that it is feasible to describe the national economic structure that determines the growth rates of the countries involved and establish the fact that integration has a significant impact on the degree with which these components of the national economic structure influence growth.

The 1967-1971 after integration equation is statistically significant and is comprised of variables that are independently significant in describing the national growth rates of the Latin American countries. To reiterate, the regression method used in this analysis necessitates that the before integration and after integration equations be generated at the same time. This process, coupled with the interaction of the economic integration dummy variable, produced an after integration equation with characteristics which were considered unreliable in this portion of the description of the national economy. The exceedingly high magnitudes of the after integration coefficients was of particular concern. When related to the average tendency of the countries to display these characteristics, these qualities generated results that appeared to be inaccurate in their description of national growth. The interaction of economic integration with the national economies, the degree of aggregation involved in the model, and the relative brevity of the after integration period are felt to

contribute to the problems exhibited in the second equation.

An overview of the entire thesis, taking into consideration all factors of the model presented leads to the overall conclusion that economic integration in conjunction with the structural characteristics of individual countries does have a significant value in explaining growth. To re-emphasize the hypothesis of this thesis, it is concluded that the result of economic integration is not unpredictable to the individual members of the integration unit. Integration by itself was not a significant explanatory factor. However, integration in conjunction with the structural characteristics of individual countries did have significant explanatory value.

In a future study using this work as a foundation, the next analytical step would be to improve the technique used here such that a quantitatively definitive statement could be made regarding the impact of economic integration on each structural variable found to significantly explain growth. The value of this study and any other work in this area would be that since economic integration does have different impacts on growth given different structures, it is socially beneficial to understand the effects of integration so that the benefits may be understood and predictable to the countries involved. This would allow for the necessary compensatory measures to be taken to adequately insure that benefits are equitable, thus allowing the integration process to continue. Given that economic integration has been determined to be a primary tool to foster growth in Latin America, it is important that progress in the realm of integration be insured.

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Appendix A

Appendix A, Table 1.

Total Exports of the LACM Members in Millions of US \$, 1950-1971

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE		CO R	EL S	GUAT	HOND	NIC		LACM
1950	1178	75	1359	281	394	74	532	32	189	254	1155		56	70	79	55	27		5810
1951	1169	121	1771	370	484	71	644	38	245	236	1370		63	86	84	66	37		5855
1952	688	107	1416	453	483	102	665	31	232	209	1446		73	88	95	63	42		6193
1953	1125	84	1539	408	606	92	591	31	186	270	1498		80	90	99	68	46		6813
1954	1027	70	1562	398	669	125	664	34	250	249	1648		85	105	105	55	55		7101
1955	929	76	1423	472	597	114	785	35	268	183	1891		81	107	106	51	72		7187
1956	944	81	1482	542	552	116	834	37	308	211	2211		67	113	122	73	58		7751
1957	975	74	1392	455	511	133	734	33	320	128	2751		83	138	114	65	64		7970
1958	994	50	1243	386	461	133	735	34	272	139	2472		92	116	107	70	64		7368
1959	1009	59	1282	495	473	142	751	31	308	99	2317		77	113	107	69	65		7397
1960	1079	51	1269	488	465	145	765	27	432	129	2358		84	117	116	64	56		7645
1961	964	58	1403	506	435	127	825	31	494	175	2381		84	119	113	73	61		7850
1962	1217	59	1214	530	464	143	931	33	538	153	2506		93	136	118	81	82		8298
1963	1365	66	1407	540	447	144	969	40	540	165	2499		95	154	152	83	100		8766
1964	1410	93	1430	623	548	158	1031	50	666	179	2503		114	178	166	95	118		9362
1965	1493	110	1595	685	539	170	1120	57	666	191	2482		112	189	188	127	144		9868
1966	1593	127	1741	878	508	184	1199	49	763	186	2404		136	189	229	143	137		10,466
1967	1465	145	1654	910	510	198	1136	48	774	159	2533		144	207	202	154	146		10,385
1968	1366	153	1881	937	558	208	1254	48	865	179	2538		171	211	227	178	157		10,931
1969	1612	182	2311	1069	608	183	1430	51	863	200	2523		190	202	262	169	155		12,010
1970	1773	226	2739	1247	732	218	1402	64	1044	233	2658		231	228	299	171	175		13,440
1971	1740	194	2904	1005	685	238	1501	65	893	206	3128		225	228	290	188	183		13,673

Appendix A, Table 2

Total Intra-Regional Exports of the LACM Members in Millions of US \$, 1951-1971

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC	LACM
1950																	
1951	194	3	146	50	2	5	14	20	58	11	72	1	2	4	4	.4	583
1952	116	4	125	65	3	7	7	11	73	30	103	.4	2	1	4	.5	582
1953	243	4	110	68	4	6	3	13	51	9	116	.4	3	2	4	-	636
1954	182	3	138	56	7	13	5	18	46	40	114	1	4	2	4	-	633
1955	199	1	145	58	4	9	4	17	56	32	126	1	4	2	5	-	665
1956	124	7	102	42	4	7	5	15	52	28	163	1	5	1.4	7	-	563
1957	143	8	139	33	5	12	6	12	49	11	170	1	6	3	6	-	604
1958	131	8	146	35	4	11	8	14	42	13	183	2	8	3	6	1	620
1959	149	7	76	41	4	10	9	7	50	3	202	2	10	4	8	4	586
1960	170	8	89	33	6	8	8	9	57	3	194	2	12	5	9	2	595
1961	74	7	97	38	7	9	11	10	34	6	160	2	15	9	9	2	490
1962	155	3	77	42	9	10	21	11	52	8	164	1	19	3	13	4	592
1963	198	3	81	51	7	15	33	10	56	15	125	4	30	17	13	5	633
1964	235	2	138	56	13	15	45	14	72	15	151	15	37	30	17	7	862
1965	247	4	202	56	19	16	44	17	62	16	155	18	46	36	21	12	971
1966	255	8	188	60	32	25	64	19	61	27	142	26	59	51	20	16	1053
1967	281	15	162	83	25	21	57	14	39	17	131	27	79	58	22	18	1052
1968	338	14	193	92	34	16	62	15	51	17	157	36	86	71	30	25	1237
1969	364	14	254	117	55	16	87	17	58	31	156	38	74	84	22	32	1419
1970	366	13	303	152	55	30	93	20	63	29	137	49	75	102	19	46	1552
1971	363	21	380	129	78	40	117	19	76	44	128	47	80	92	5	47	1566

Appendix A, Table 3.

Intra-Regional Trade of the LACM Members in Millions US \$, 1972

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		17.76	177.93	47.44	6.34	5.53	19.34	15.68	28.30	5.11	21.34	.02	.85			
BOL	22.59		15.00	1.65			.56		2.04	.33	.06	.01	.01			
BRAZ	138.78			25.84	.53	2.64	37.01		14.36	16.39	75.74		.00	.05		.70
CHIL	199.91	.68	22.96		2.52	16.84	24.94		4.82	8.71						
COL	10.27		15.52	12.03		16.29	11.81		9.38	3.75	17.45	.19			.64	.09
ECUA	6.02		1.73	3.12			4.01		5.46	.06	1.91	.09	.74	.30		.05
MEX	21.46	1.88	17.27	12.96	.37	.42			18.61	.50	8.81	1.85	.05	.84	.03	.06
PAR	11.64									1.03						
PERU	11.54	8.67	13.58	9.65	67.61	11.20	14.93			.77	8.15	.03	.01		.01	.62
URG	38.60	.40	34.29		.24	.07	.97	.62								
VENE	14.00	.01	15.54	4.81	1.61	.27	27.28		5.51	.18		.04	.26			1.62
LAFTA	475	29	314	118	79	53	141	16	88	37	133					
CO R	.79	.01	.10	.02	2.35		6.42		.21		8.40		22.09	31.33		27.83
EL S	.45					.05	4.84		.29		3.12	12.00		42.77		11.14
GUAT	.48		.23	.04	.97	.05	6.99		.09	.02		15.86	46.54			10.74
HOND	.18		.12		1.95		3.13		.22		14.55	3.92				4.50
NIC	.70			.01	2.26	.08	4.02			.01	11.40	16.99	16.78	18.96		
CACM												37	85	93		54
DOT T	1932	147	3862	868	864	342	2472	86	1090	204	3414	286	272	347	226	248
IPS			3991		586	322		86	943	197		278	273		196	

Appendix A, Table 4.

Intra-Regional Trade of the LACM Members in Millions US \$, 1971

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		14.01	181.79	62.97	8.93	4.76	16.70	17.85	21.12	5.88	25.41		.43			
BOL	20.60		4.45	1.36	.17	.20	.43		2.02	.14	.04	.02		.08		
BRAZ	106.57			25.12	2.13	1.98	25.87		11.32	24.07	67.57	.00		.05		.47
CHIL	129.00	.89	10.88		6.37	12.52	20.34		5.74	5.28		.01				
COL	12.34		6.27	9.05		12.67	12.40		9.43	5.20	14.01	.49	.04	.00	.44	.05
ECUA	4.12		.47	2.87	9.25		2.91		4.16	.08	5.19	.12	.24	.21		.05
MEX	17.67	1.27	18.84	11.73	.96	.44			16.10	.79	7.94	1.36	.04	.79	.04	
PAR	9.66		9.37		.00		.60		.04	1.02			.01			
PERU	14.51	4.64	10.62	9.32	44.68	6.71	11.51			1.34	8.08	.01	.01	.01	.01	.06
URG	34.92	.20	32.68	2.28	.17	.04	1.91	1.36	.56		.25					
VENE	14.00	.01	5.46	4.03	5.16	.19	24.57		5.43	.23		.08	.14	.02		.39
LAFTA	363	21	281	129	78	40	117	19	76	44	128					
CO R	.52	.90	.23	.01	2.23	.05	5.73		.16	.01	8.54		20.78	25.73	1.41	25.14
EL S	.27		.07		.58	.07	4.01		.09	.37	4.13	11.48		40.80		9.15
GUAT	.46		.05	.02	1.27	.07	7.90		.22	.01	3.30	15.41	43.13		1.60	9.17
HOND	.13		.22		1.08		2.43		.12	.00	12.06	4.77		8.87		3.90
NIC	.38		.06	.02	1.83	.07	8.21		.06	.01	10.28	15.40	15.61	16.74	1.89	
CACM												47	80	92	5	47
DOT T	1740	124	2777	1005	685	288	1501	65	893	206	3295	232	222	283	216	187
IFS	1740	194	2904	1005	673	241	1501	65	892	206	3155	225	228	290	188	183

Appendix A, Table 5.

Intra-Regional Trade of the LACM Members in Millions US \$, 1970

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PFRU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		10.27	185.65	78.50	11.51	3.99	14.06	17.57	13.94	6.36	29.48	.00	.00			.00
BOL	15.81		7.60	1.07		.16	.30		1.99	.16	.02		.60	.17		
BRAZ	138.57	.14		24.40	1.41	1.33	14.67		8.27	12.42	59.40	.00	.00	.04		.03
CHIL	91.48	1.10	23.72		5.22	8.21	15.74		6.66	2.04	11.59			.00	.00	.07
COL	13.92		6.68	6.07		9.06	12.99		9.48	3.14	10.57	.18	.00	.02	.25	
ECUA	2.44		.77	2.62	7.93		1.81		2.86	.06	8.47	.07	.26	.13		.01
MEX	16.01	.65	20.41	10.50	1.56	.46			13.59	1.03	7.07	1.36	.04	.74	.04	.90
PAR	15.07		11.19	.24			.17		.11	1.58	.03			.01		
PERU	31.73	.61	7.66	8.99	21.75	6.71	8.09			2.13	8.01	.01	.01	.01		.02
URG	28.17		31.07	16.34	.09	.04	2.85	2.65	1.23		2.60			.00		
VENE	12.57	.01	8.20	3.25	5.10	.19	21.86		5.35	.28		.08	.13	.10		.05
LAFTA	366	13	303	152	55	30	93	20	63	29	137					
CO R	.53		.36		2.10	.05	5.04		.11	.03	8.68		19.47	20.13	7.16	18.38
EL S	.04				.55	.10	3.18		.29	.02	5.14	10.49		38.83		7.81
GUAT	.70		.09		1.56	.08	8.81		.15	.07	17.17	11.08	39.72		7.50	7.25
HOND	.12		.14		.94	.02	1.73		.02		9.51	11.65		28.87		12.61
NIC	.38		.59		1.37	.07	2.40		.25	.00	9.16	15.40	15.61	14.53	4.22	
CACM												49	75	102	19	46
DOT T	1773	162	2739	1253	729	307	1404	64	1048	233	3203	227	228	290	172	180
IFS	1773	226	2739	1247	727	230	1402	64	1043	233	2655	231	229	298	171	175

Appendix A, Table 6.

Intra-Regional Trade of the LACM Members in Millions US \$, 1969

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		10.65	170.70	69.39	7.87	3.02	13.98	14.58	15.31	4.87	32.52		.01			.00
BOL	22.27		3.90	.78	.49	.11	.94		2.09	.14			.00	.02		
BRAZ	130.11	.65		23.18	1.85	.67	14.64		6.39	10.60	51.23	.00	.00	.00	.16	.01
CHIL	88.50	1.31	24.10		6.58	3.89	12.39		9.53	2.93	36.84			.00		
COL	9.35		2.26	3.09		5.44	20.14		7.50	5.35	7.13	.09	.02	.00	.06	.05
ECUA	3.15		.29	2.37	14.24		1.39		2.49	.27	11.75	.02	.26	.06	.00	.01
MEX	14.09	1.22	14.01	7.60	.54	.72			8.14	.26	5.58	1.20	.03	1.15	.07	
PAR	15.29		6.58	.20	.05	.06	.35		.02	1.21				.00		
PERU	44.95	.14	4.87	4.60	16.17	1.94	5.96			4.72	9.21		.01		.01	.02
URG	22.94	.15	22.69	2.84	.11	.04	1.55	2.06	.82		1.85					
VENE	13.65	.01	4.53	2.47	6.84	.03	15.40		5.23	.27		.02	.13	.02		.47
LAFTA	364	14	254	117	55	16	87	17	58	31	156					
CO R	.30		.17		1.99	.07	4.22		.21	.03	6.90		19.47	17.86	5.40	13.68
EL S	.47		.02		.96	.12	3.20		.23	.00	6.15	8.70		35.47	6.66	6.52
GUAT	.38	.02	.15		.75	.10	9.13		.21	.02	13.70	8.86	39.72		5.48	5.08
HOND	.32		.15		.50	.03	2.08		.08	.00	7.08	7.95		17.71		6.40
NIC	.23	.00			.75	.06	1.98		.07	.01	5.79	12.38	14.44	12.71	4.31	
CACM												38	74	84	22	32
DOT T	1612	149	2310	1075	607	153	1430	51	865	200	2897	194	202	255	215	159
IFS	1612	182	2311	1069	605	194	1430	54	863	200	2523	190	202	262	169	155

Appendix A, Table 7.

Intra-Regional Trade of the LACM Members in Millions US \$, 1968

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		8.30	118.70	48.00	6.20	2.96	10.50	12.70	12.60	2.20	23.60					
BOL	13.50		2.80	.82		.07	.70		1.70							
BRAZ	129.10	.80		19.92	2.50	.51	13.00		5.30	5.30	56.90					
CHIL	77.50	1.40	23.30		4.70	5.04	12.20		8.00	2.10	34.00					
COL	9.30		2.00	3.19		5.90	6.30		5.30	4.60	5.20				.04	.10
ECUA	1.30		.20	1.73	6.40		1.70		2.10		13.50					
MEX	11.30	1.20	11.20	5.54	1.40	.54			8.80	.10	5.10	.70	.10	.40	.06	
PAR	12.80		5.10		.10	.02	.30			.60						
PERU	57.80	2.30	6.80	4.35	6.30	1.20	4.80			1.90	17.80				.30	
URG	18.60		19.20	3.25	.00	.08	1.50	2.00	.80		.50					
VENE	6.90		4.00	4.92	6.30	.04	11.10		6.00	.10		.10		.60	.59	1.10
LAFTA	338	14	193	92	34	16	62	15	51	17	157					
CO R					1.50	.05	3.70				5.90		16.60	14.40	5.25	11.00
EL S	.00		.10		.60	.10	3.60				9.40	8.60		32.50	13.79	5.70
GUAT					.40	.08	6.60				12.30	8.10	30.80		7.13	3.50
HOND	.10				.60	.06	1.50					6.30	23.40	12.70		4.40
NIC	.50				1.10	.06	2.80				4.70	13.50	14.80	11.30	4.17	
CACM												36	86	71	30	25
DOT T	1366	171	1882	941	554	195	1253	48	864	177	2854	172	211	220	179	161
IFS	1368	153	1881	937	558	208	1254	48	865	179	2537	171	212	227	178	157

Appendix A, Table 8.

Intra-Regional Trade of the LACM Members in Millions US \$, 1967

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		8.70	97.80	39.80	4.50	3.18	9.40	11.40	8.70	3.30	29.20					
BOL	8.30		4.10	1.03		.09	.50		1.30							
BRAZ	101.20	1.70		16.23	.60	.27	11.60		5.00	5.20	43.30					
CHIL	74.60	1.20	21.90		1.90	6.65	14.10		8.10	1.70	27.40			1.00		
COL	8.40		2.40	1.42		5.36	3.70		3.60	2.80	5.30				.10	.20
ECUA	1.80		.40	1.57	5.10		1.20		1.20	.10	10.40					.10
MEX	9.90	.30	7.00	8.34	.60	1.09			6.10	.50	2.40			.20		.20
PAR	13.90		3.60				.20			.60						
PERU	51.50	2.10	3.90		9.50	3.91	5.90			3.10	9.10	.70			.20	
URG	10.20	.60	17.90		.30	.09	1.50	2.80	1.10		4.00					
VENE	4.00		2.10		2.70		9.00		4.30	.10		.10				.20
LAFTA	284	15	162	83	25	21	57	14	39	17	131					
CO R	.10				1.20		3.10		.10		3.90		12.80	9.10	2.60	7.20
EL S	.10		.20		.60	.09	3.30		.10		8.30	6.10		28.70	11.00	4.90
GUAT	.30				.60		6.00		.10		13.40	5.60	32.80		6.20	2.40
HOND			.10		.50		1.40					4.40	20.00	9.40		3.70
NIC	.20		.10		.80		3.30		.10		6.00	11.30	13.60	10.60	2.30	
CACM												27	79	58	22	18
DOT T	1465	171	1655	913	510	249	1143	48	774	159	2871	143	207	197	156	152
IFS	1465	145	1654	910	510	198	1136	48	774	159	2490	144	207	203	154	146

Appendix A, Table 9.

Intra-Regional Trade of the LACM Members in Millions US, 1966

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VE NE	CO R	EL S	GUAT	HOND	NIC
ARG		3.30	113.10	27.80	11.70	2.64	9.60	15.90	13.70	5.20	17.90					
BOL	8.30		1.60	1.00		.18	.40		1.30		.10					
BRAZ	98.90	1.30		9.10	.50	.22	19.60		5.30	10.60	65.40					
CHIL	58.10	1.00	22.60		1.30	5.09	11.70		15.10	3.00	27.40					
COL	10.50		6.90	3.30		5.54	8.30		8.20	5.20	1.90	.50			.10	.30
ECUA	.50		.30	1.30	5.10		1.10		1.10	.10	9.10					
MEX	8.60		6.20	4.70	.60	.45			7.00	.30	1.10	.40			.10	
PAR	11.50		2.50				.20			.80	.30					
PERU	43.30	2.10	9.90	4.50	8.50	5.09	4.60			1.70	10.10	1.30				
URG	11.40		20.00	2.90	.30	.09	1.70	3.00	2.00		8.40					
VE NE	3.50		4.60	5.40	2.70	1.05	7.20		6.90	.10		.20				
LAFTA	255	8	188	60	32	25	64	19	61	27	142					
CO R	.10		.10		1.20	.09	3.70				1.60		8.40	7.30	2.40	5.60
EL S	.10		.10	.00	.60	.09	3.10				9.30	6.20		28.50	10.80	5.30
GUAT	.00		.30		.60	.09	6.00		.10		13.00	4.90	23.88		4.80	2.30
HOND	.10		.10		.50	.09	1.20			.10	.50	4.40	16.80	7.20		3.00
NIC	.00		.10		.50	.09	2.50				5.20	10.00	10.00	7.90	2.50	
CACM												26	59	51	20	16
DOT T	1593	150	1741	881	508	233	1223	50	766	186	2713	139	192	226	146	142
IFS	1593	127	1741	878	510	184	1199	48	763	186	2357	135	189	232	143	137

Appendix A, Table 10.

Intra-Regional Trade of the LACM Members in Millions US \$, 1965

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		.9	141.0	26.5	5.5	2.2	7.4	14.7	19.7	3.1	26.1					
BOL	7.6		1.2	.8	.4				1.2							
BRAZ	107.1	1.3		14.1			5.4		5.3	5.4	79.9					
CHIL	53.4	.7	19.0		.8	3.2	12.3		17.4	.9	16.8					
COL	7.1		2.9	1.9		6.1	5.5		4.3	4.6	1.2					
ECUA	.6			1.4	3.9		1.3		1.4		7.8					
MEX	6.7		8.9	2.8	.5	.2			4.3	.3	.1					
PAR	10.6		2.3	.1						.2						
PERU	37.6	.6	12.0	4.6	5.2	3.8	3.5			1.0	7.2					
URG	8.0		11.2	1.9	.3		.8	2.2	1.7		15.5					
VENE	7.9		3.2	2.3	2.8	.2	7.4		7.0	.1						
LAFTA	247	4	202	56	19	16	44	17	62	16	155					
CO R					2.6		2.5				3.1		4.7	4.3	1.5	4.2
EL S							4.4				8.0	4.7		19.6	13.2	3.9
GUAT					1.1		5.0				9.5	4.4	20.3		5.2	1.7
HOND							.9					3.0	14.3	6.6		2.6
NIC					1.2		2.4				4.3	6.3	6.2	5.2	1.2	
CACM												18	46	36	21	12
DOT T	1493	132	1595	685	539	223	1142	57	668	191	2784	112	189	187	127	149
IFS	1492	110	1596	688	537	178	1146	57	666	191	2744	112	188	186	127	144

Appendix A, Table 11.

Intra-Regional Trade of the LACM Members in Millions US \$, 1964

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		1.0	90.8	20.7	3.5	1.8	8.5	11.6	14.2	4.1	26.0					
BOL	4.2		.9	.6					1.2							
BRAZ	97.2	.8		23.0			5.6		10.2	1.9	87.4					
CHIL	40.7	.2	11.4		.3	3.5	9.4		29.0	1.8	8.3					
COL	9.1		2.0	1.8		5.7	5.3		2.8	5.2	2.9					
ECUA	1.1			1.2	3.7		1.0		1.8		7.1					
MEX	5.6		6.3	1.8	.3				3.6	.1	1.6					
PAR	11.3		2.4							.2						
PERU	30.7	.2	1.4	4.0	2.7	3.5	2.8			1.6	5.2					
URG	22.7		18.4	1.9	.5		1.2	2.9	3.0		12.6					
VENE	12.6		4.6	1.4	1.6	.1	11.6		5.7	.1						
LAFTA	235	2	138	56	13	15	45	14	72	15	151					
CO R					1.1		1.9				2.1		3.1	2.7	.8	3.0
EL S							2.7				9.1	6.9		17.1	11.2	2.0
GUAT					1.8		4.6				4.5	3.2	19.1		4.0	.8
HOND							1.1					1.4	10.4	5.4		1.2
NIC					.6		3.0				4.7	3.3	4.2	4.4	.8	
CACM												15	37	30	17	7
LACM																
DOT T	1410	114	1430	626	548	205	1055	50	667	179	2742	113	178	167	95	126
IFS	1410	93	1431	624	546	162	1054	50	666	179	2703	114	178	165	95	118

Appendix A, Table 12.

Intra-Regional Trade of the LACM Members in Millions US \$, 1963

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VE NE	CO R	EL S	GUAT	HOND	NIC
ARG		2.1	46.2	14.5	.6	1.2	2.5	8.6	6.3	.9	15.5					
BOL	4.5		1.1	.5					1.8							
BRAZ	77.5	.7		27.0	.1		10.7		9.9	9.7	85.0					
CHIL	41.5	.1	10.4		.3	6.6	5.0		24.8	1.5	6.3					
COL	8.2		.6	.9		4.0	3.9		1.7	1.7	1.2					
ECUA	.3			.7	2.7		.9		1.6		2.7					
MEX	2.7		1.4	1.2	.2				2.4	.1	.4					
PAR	9.6		2.9							.4						
PERU	35.5	.1	1.0	3.7	1.8	2.1	3.0			.6	4.2					
URG	9.7		13.5	1.4	.3		.5	1.5	2.4		10.1					
VE NE	8.2		3.4	1.4	.9	.8	5.8		3.0	-						
LAFTA	198	3	81	51	7	15	33	10	56	15	125					
CO R					1.3		1.9				1.5		2.4	.4	.1	1.4
EL S							2.1				7.7	2.0		11.1	9.2	2.1
GUAT					.5		4.1				2.7	.4	16.5		3.1	.6
HOND							1.2					.2	8.5	3.5		.6
NIC					.5		1.8				3.2	1.3	2.9	2.3	.2	
CACM												4	30	17	13	5
LACM																
	1365	86	1406	542	447	179	971	40	541	165	2629	92	154	149	83	107
	1365	66	1407	540	446	149	985	40	540	165	2629	95	154	154	83	100

Appendix A, Table 13.

Intra-Regional Trade of the LACM Members in Millions US \$, 1962

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		1.90	48.50	14.90	.70	.40	2.30	9.60	8.30	1.60	34.70					
BOL	7.60		.90	1.70					1.60							
BRAZ	68.50	.80		18.50			7.60		11.10	3.00	98.40					
CHIL	31.80	.30	9.40		1.00	2.30	2.30		23.70	.90	11.10					
COL	2.30		.20	.70		4.50	1.70		1.00	2.00	1.50	1.10				
ECUA	.10			.50	1.50		.70		1.50		3.30					
MEX	1.00		.30	.70	.10				1.80		.10					
PAR	5.50		2.10							.20						
PERU	25.70	.10	1.20	3.10	3.80	2.90	1.70			.10	2.70	1.00				
URG	6.70		14.10	1.00	.30		.50	1.20	1.40		12.70					
VENE	5.60		.40	1.40	1.00		4.40		1.70							.10
LAFTA	155	3	77	42	9	10	21	11	52	8	164					
CO R					.60		1.40				1.80		1.80		.20	1.00
EL S							2.00				.00	1.20		2.50	8.30	1.90
GUAT					.30		3.60				1.20		7.60		3.20	.40
HOND							.90				.20		6.00	.80		.20
NIC					.40		1.50				.80	.10	3.30	.10	.20	
CACM												11	19	3	13	4
DOT T	1217	76	1215	532	464	144	931	34	539	153	2593	84	136	109	80	90
IFS	1216	59	1214	530	463	143	930	33	538	153	2594	93	136	118	81	82

Appendix A, Table 14.

Intra-Regional Trade of the LACM Members in Millions US \$, 1961

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		3.5	67.5	23.2	.2	.1	1.1	8.7	8.2	1.8	53.0					
BOL	7.5		.4	1.9					1.4							
BRAZ	26.8	2.5		6.3	.2		1.8		3.8	1.8	82.0					
CHIL	43.0	.3	9.0		.3	2.2	1.5		14.4	.8	6.8					
COL	.3		1.0	.3		5.7	1.8		.9	.5	2.7	.4				.1
ECUA	.1			.5	1.2		.6		1.9		2.7					
NEX	1.2		.1	.3	.2				.9		.1				.1	
PAR	3.7		.6													
PERU	14.2	.2	1.2	2.9	3.9	1.0	.8			.5	1.8	1.8				
URG	5.8		15.8	1.4	.1		.2	1.1	1.4		11.0					
VENE	4.7		1.7	1.1	1.3	.4	3.1		.8	.1					1.4	.2
LAFTA	74	7	97	38	7	9	11	10	34	6	160					
CO R					.8		1.2				1.1		1.5	.8	.4	.9
EL S							1.7				.7	.9		6.2	6.5	.7
GUAT					.2		3.3				1.2	1.0	7.7		2.3	.1
HOND							1.0				.2		4.6	1.3		.1
NIC					.3		.7				.7	.3	1.2	.3	.1	
CACM												2	15	9	9	2
LACM																
	964	76	1403	509	435	125	825	31	496	172	2411	81	119	110	68	68
	964	58	1403	506	435	127	826	31	494	175	2413	84	119	113	73	61

Appendix A, Table 15.

Intra-Regional Trade of the LACM Members in Millions US \$, 1960

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		3.9	56.5	17.9	.1		.6	7.7	9.4	2.4	68.3					
BOL	2.3		.5	1.8					2.9							
BRAZ	82.8	4.0		5.8			1.2		2.1	.3	84.8					
CHIL	41.7	.3	11.6		1.0	2.4	1.4		16.5	.3	9.4					
COL	.3		.2	1.0		2.7	1.2		.8	.1		.5				
ECUA	.1			.7	.4				3.1		3.0					
MEX	.8		.1	.4	.1				.8		.1		.1	.2		
PAR	8.5		1.1					.1	3.5							
PERU	15.5	.1	.4	3.4	3.2	.1	.7			.1	1.8	.4				
URG	12.9		16.7	1.1			.1	1.2	.7		23.2					
VENE	5.4		1.4	.9	1.4	2.9	2.9		.5			.2		.7	1.1	.2
LAFTA	170	8	89	33	6	8	8	9	37	3	194					
CO R					1.3		1.1		.2				.8	.1	.1	1.2
EL S							1.9					.6		4.4	6.5	1.3
GUAT							2.7					.8	6.1		2.0	-
HOND							.6						4.0	.4		-
NIC							.8		.3			1.0	1.4	.1	.1	
CACM												2	12	5	9	2
LACM																
	1079	68	1271	490	465	105	764	27	432	129	2518	88	117	113	64	63
	1080	51	1269	488	466	144	764	27	432	129	2432	86	117	117	63	56

Appendix A, Table 16.

Intra-Regional Trade of the LACM Members in Millions US \$, 1959

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		4.6	42.9	24.0	.1	.3	.5	6.4	10.0	.4	86.6					
BOL	5.3		.3	1.7					3.2							
BRAZ	88.8	1.5		8.2			.3		1.4	1.4	85.1					
CHIL	25.1	.1	9.8		1.2	2.2	1.4		29.7		8.4					
COL	.2					5.2	1.3		1.4	.2	3.2					
ECUA				1.0	.3				2.8		3.9					
MEX	.7		.1	1.3					.6		.4					
PAR	8.4		.8							.1	.1					
PERU	8.4	.5	.2	3.0	1.2	.1	.8			.6	.3					
URG	6.1		21.0	1.2			.1	.9	.7		14.5					
VENE	5.6		1.2	.9	1.5	1.9	4.7		.5	.2						
LAFTA	149	7	76	41	4	10	9	7	50	3	202					
CO R													.6			3.0
EL S												.6		4.0	6.3	1.2
GUAT												.3	4.1		1.3	
HOND													4.1	.1		
NIC												.7	1.7			
CACM												2	10	4	8	4
LACM																
	1009	77	1282	497	466	97	750	31	314	99	2367	77	113	103	69	72
	1009	59	1282	495	473	142	751	31	308	99	2317	77	113	107	69	65

Appendix A, Table 17.

Intra-Regional Trade of the LACM Members in Millions US \$, 1958

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VE NE	CO R	EL S	GUAT	HOND	NIC
ARG		6.0	107	23.3		.5	.4	13.2	2.6	1.3	74.2					
BOL	6.7		.4	.9					3.5							
BRAZ	76.1	.5		4.3			.9		1.5	9	97.1					
CHIL	20.9	.6	12		1.2	2.2	.3		29.5							
COL	.3					4.4	.9		1.1	.3		.9				
ECUA				1.1	.2				2.7							
MEX	1.4		.1	.4	.1				.2					1		
PAR	7.9		1.3							.5						
PERU	11.2	.5	.2	2.7	1.5	.3	.6			1.8		.1				
URG	.9		22.5	.9			.2	.5	.5		17.9					
VE NE	5.8		2.1	1.3	1.2	3.3	4.5		.4	.5				.1	1.6	
LAFTA	131	8	146	35	4	11	8	14	42	13	188					
CO R					.5		1.1						.6			.4
EL S							1.8					.9		2.9	5.4	.7
GUAT							6.3					.2	3		1	
HOND													3.4	.1		.3
NIC							1					.7	1.2			
CACM												2	8	3	6	1
LACM																
	994	65	1243	389	461	95	735	34	291	139	2319	92	115	103	70	71
	994	50	1243	386	461	133	735	34	272	139	2472	92	116	107	70	64

Appendix A, Table 18.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1957

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		4.63	103.18	18.45	1.68	.54	.57	10.90	6.30	.41	71.45					
BOL	4.90			.96					4.49							
BRAZ	75.20	1.95		5.42			.99		2.40	8.78	90.59					
CHIL	24.00	.66	12.16		1.55				25.47	.21						
COL					6.76				1.04	.15						
ECUA				1.35	.38				4.63	.11						
MEX	.90		.12							.01						
PAR	11.80									.05						
PERU	15.80	.52		4.15	1.23	2.61				.87						
URG	6.30		23.62	2.21		.01		1.30	3.22		17.89					
VENE	4.40		.00		1.85	.04	3.89		.66	.44						
LAFTA	143	8	139	33	5	12	6	12	49	11	170					
CO R													.44	.02	.10	.04
EL S												.39		2.54	5.10	.12
GUAT													2.36		.80	-
HOND												.10	2.36	.13		-
NIC												.70	1.16		.05	
CACM												1	6	3	6	-
DOT 1				2227			8827		6270		7928		346	109	128	
DOT 2	975	98	1392		511	98				128		83				
IMF	975	74	1392	455	511	133	734	33	320	128	2751	83	138	114	65	64

Appendix A, Table 19.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1956

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		2.70	65.50	30.31	.97	.72	1.47	12.80	5.31	.25	52.06					
BOL	8.0			1.78					4.72							
BRAZ	65.4	2.77		4.98			.30		1.93	23.74	91.82					
CHIL	20.4	1.39	10.33			1.24			27.38	.35						
COL						4.92			5.93	.47	.51					
ECUA				.92	.34				3.87	.05						
MEX	.9		.07							.12						
PAR	6.2									1.58						
PERU	14.6	.06		2.72	.06	.26				.35	1.61					
URG	4.7	.05	23.66	1.07		.01		1.90	1.80		17.40					
VENE	3.7		.58		2.28	.05	3.15		.50	.41						
LAFTA	124	7	102	42	4	7	5	15	52	28	163					
CO R													.48	.04	.05	.02
EL S												.23		1.48	6.10	.07
GUAT													2.44		.35	-
HOND												.08	1.44	.02		.01
NIC												.36	.88		.05	
CACM												1	5	1	7	-
DOT 1				2642			10,090		5917		7116		282	116	145	
DOT 2	944	107	1482		537	94		37		211		67				
	944	81	1482	542	552	116	834	37	308	211	2211	67	113	122	73	58

Appendix A, Table 20.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1955

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		.30	99.80	44.20	.04	1.57	.84	16.00	4.78		39.67					
BOL	6.9			.96					5.32							
BRAZ	128.6	.10		9.45			1.02		.62	28.00	72.54					
CHIL	29.7	.50	11.42			1.34			35.92	.25						
COL						5.81			3.08	1.42						
ECUA				.92	1.30				5.86	.06						
MEX	.7		.10							.02						
PAR	14.2									.46						
PERU	15.6			2.82	.27	.09				3.33						
URG	1.0		32.84	.57		.02		1.00	.94		14.00					
VENE	2.7		.41	-	1.93	.09	2.46		.58	.19						
LAFTA	199	1	145	58	4	9	4	17	56	32	126					
CO R													.24	.01	.10	.02
EL S												.35		1.80	4.00	.11
GUAT													1.20		.55	.00
HOND												.30	1.88	.01		.03
NIC												.16	.76		.05	
CACM												1	4	2	4	-
DOT 1				2304			9512		5146		6409		267	99	96	
DOT 2	929	101	1423		584	89		35		184		81				
IMF	929	76	1423	472	597	114	785	35	268	183	1891	81	197	106	51	72

Appendix A, Table 21.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1954

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		1.34	100.00	35.73	1.55	1.57	.88	14.70	6.10		33.79					
BOL	3.10			1.16					4.84							
BRAZ	92.60	.89		8.39		.03	2.41		.60	34.34	67.76					
CHIL	53.20	1.05	11.90			2.11			26.46	.25						
COL						7.81			3.05	1.38	1.58					
ECUA				1.14	.53				2.32	.03						
MEX	.50		.06							.08	.03					
PAR	9.90									2.62						
PERU	17.20	.02		2.15	.87	.09				.34	.39					
URG	1.70	.02	30.76	6.99		.29		3.20	1.71		12.42					
VENE	3.00		.31		3.80	.25	1.81		1.00							
LAFTA	182	3	138	56	7	13	5	18	46	40	114					
CO R													.08	.01	.198	.01
EL S												.50		1.63	3.62	.26
GUAT													1.16		.15	
HOND												.30	1.88	.11		.05
NIC												.17	1.28		.05	
CACM												1	4	2	4	-
DOT 1	6757		28676	1957	1641		6921		4792		5661		263	96	111	
DOT 2		111				100		35		249		85				
IMF	1027	70	1562	398	669	125	664	34	240	249	1048	85	105	105	55	55

Appendix A, Table 22.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1953

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		1.05	75.30	43.92	1.38		.35	13.40	5.55		32.44					
BOL	4.38			1.30					4.80							
BRAZ	174.68	1.29		7.73			1.51		.21	9.32	70.51					
CHIL	35.31	.97	10.95			1.49			25.22							
COL			.04	.89		3.16			6.22		1.01					
ECUA				2.19	.69				2.14							
MEX	1.20		.08	.39	.04						.03					
PAR	8.42															
PERU	13.83	.19		3.41	.37	.27					.89					
URG	1.58	.01	23.26	7.84		.87			3.65		11.12					
VENE	3.88		.50	.77	1.83	.17	1.43		.23	.16						
LAFTA	243	4	110	68	4	6	3	13	51	9	116					
CO R														.02	.20	.01
EL S														1.65	3.97	.18
GUAT													.92		.20	
HOND												.11	1.29			.06
NIC												.23	.72		.04	
CACM												-	3	2	4	-
DOT 1	7190		32047	2010	1490		4702		3752		4842		224	89	135	
DOT 2		125				73				270		76				
IMF	1125	84	1539	408	606	92	591	31	186	270	1498	80	90	99	68	46

Appendix A, Table 23.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1952

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		1.11	96.10	38.60	2.25		.61	5.05	10.47	.55	52.60					
BOL	3.04			2.02					6.86							
BRAZ	49.57	1.60		8.62	.08		1.48	.03	.49	24.98	85.97					
CHIL	26.49	.67	11.68			1.12			40.89	.22	.06					
COL			.13	1.01		3.80			5.00		.32					
ECUA				1.10	.33				2.10	.05	.01					
MEX	.55		.04	.14	.24						.05					
PAR	4.14									2.40						
PERU	19.65	.20		4.41	.16	.07				.44	.02					
URG	.23	.06	17.07	9.18		.63			5.78		9.51					
VENE	2.30		.62	.55	.49	.07	1.79	4.01	.18	.30						
LAFTA	116	4	125	65	3	7	4	11	73	30	103					
CO R														.03	.32	.03
EL S														1.00	3.77	.18
GUAT													.48		.11	
HOND												.22	1.19			.06
NIC												.21	.44		.11	
CACM												-	2	1	4	-
DOT 1	4392		26065	2237	1183		5126	272	3687				221	87	124	51
DOT 2		142				77				209		73				
IMF	668	107	1416	453	483	102	665	31	232	209	1446	73	88	95	63	42

Appendix A, Table 24.

Intra-Regional Trade of the LACM Members in Millions of US \$, 1951

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
ARG		1.30	117.36	25.86	.78		6.03	19.51	13.61	2.36	19.60					
BOL	7.09			2.25					7.76							
BRAZ	122.54	.98		13.08	.04	.01	6.15	.01	3.01	7.03	40.51					
CHIL	31.50	.25	6.24			1.57			18.60	.99						
COL			1.47	.79		2.92			5.34		1.81					
ECUA				.97	.13				1.48		.09					
MEX	1.15		3.14	.22						.02	.12					
PAR	8.79									.77						
PERU	17.26	.21		2.79	.09	.24				.06	.59					
URG	2.32	.02	16.73	4.92		1.18		1.98	6.83		7.79					
VENE	3.62		.83	.42	1.26	.27	1.88		.15	.26						
LAFTA	194	3	146	50	2	5	14	20	58	11	72					
CO R														.04	.25	.03
EL S														.33	3.26	.31
GUAT													.48		.18	.04
HOND												.46	1.77			.03
NIC												.23	.08		.03	
CACM												1	2	-	4	-
DOT 1	6711		32514	1824	1093		5447	188	3812		4534		214	76	149	46
DOT 2		151				52				236		63				
IMF	1169	121	1771	370	484	71	644	38	245	236	1370	63	86	84	66	37

Appendix B

Appendix B, Table 1.

Annual percent change in current Gross National Product

	ARG	BOL	BRAZ	CHILE	COL	ECUA	MEX	PAR	PERU	URG	VENEZ		Co R	EI S	GUAT	HONO	NIC		
1950																			
1951																			
1952																			
1953																			
1954	12.4		33.7	67.4	19.2	12.3	22.4	38.1	16.0	7.7	10.6		8.8	12.6	6.3	1.4	3.3		
1955	17.9		24.9	75.1	3.7	5.6	22.1	31.7	10.1	9.3	8.3		12.9	3.5	4.3	9.0	6.0		
1956	26.9		27.1	59.2	11.9	1.5	13.7	25.2	11.8	12.2	12.1		3.6	8.4	11.0	2.1	1.6		
1957	24.9		22.4	39.3	19.0	6.7	15.0	27.8	9.7	18.4	14.9		9.1	6.5	4.1	7.2	9.7		
1958	42.1		19.6	30.1	15.8	3.6	11.4	14.2	11.3	8.2	9.1		7.8	2.5	3.1	4.2	-0.3		
1959	91.4		36.4	40.1	14.3	4.7	7.1	12.4	17.0	33.9	5.3		4.1	-2.8	2.3	4.6	1.9		
1960	29.7		38.4	-1.5	13.0	8.9	13.1	17.1	20.0	53.2	0.3		5.9	5.1	2.6	0.9	1.5		
1961	19.2		47.4	13.4	13.4	6.4	6.3	15.0	12.2	27.5	3.5		2.6	1.9	2.1	4.9	6.5		
1962	23.1		62.3	20.5	11.5	7.1	8.4	14.3	15.1	9.0	6.6		9.3	11.5	9.8	5.5	10.4		
1963	23.4		81.3	47.9	29.1	9.2	8.3	6.2	9.8	17.9	8.5		8.9	4.7	10.3	2.7	34.5		
1964	36.3		93.1	51.6	24.0	10.7	16.9	5.3	20.7	45.5	13.9		3.2	10.3	2.2	7.8	-2.0		
1965	52.7		59.1	40.5	13.1	6.7	8.1	8.8	19.0	60.5	5.4		9.5	6.6	2.9	10.4	7.8		
1966	24.6		46.1	38.5	20.8	10.1	12.1	5.8	18.6	89.8	4.8		7.3	6.0	4.1	5.8	4.3		
1967	30.6		32.8	30.9	12.8	10.1	10.0	5.1	14.7	68.4	7.3		8.1	5.0	4.2	5.7	7.5		
1968	16.4		40.0	34.8	15.7	10.4	11.2	5.0	17.9	220.2	-1.1		10.0	3.1	10.4	9.8	9.9		
1969	17.2		33.3	45.6	14.3	9.6	12.7	6.8	9.4	35.6	6.8		10.7	4.3	6.8	4.4	5.9		
1970	17.9		31.0	45.4	17.3	21.3	11.7	6.7	14.7	20.8	8.9		14.8	7.7	10.0	6.2	7.8		
1971																			

Appendix B, Table 2.

Annual Percent Change in Constant Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE		CO R	EL S	GUAT	HOND	NIC		
1950																			
1951	3.7		5.6	4.4	3.4	3.4	9.1	1.3	13.5		12.1				1.7	7.4	7.0		
1952	-4.7		8.6	5.9	6.7	8.6	3.3	-1.3	.0		7.5				2.1	6.2	14.4		
1953	5.5		2.7	5.8	6.0	4.3	4.6	5.3	1.9		7.6				2.8	6.5	1.5		
1954	4.0		10.0	.4	7.2	8.0	5.4	2.5	9.8	3.0	10.2		6.5	2.5	1.9	.9	12.7		
1955	7.2		6.8	-1.0	4.0	2.4	7.4	6.4	5.2	4.8	7.7		4.7	4.6	2.9	3.0	3.4		
1956	2.6		3.1	.2	3.9	3.1	5.3	2.3	4.6	1.8	8.1		2.6	4.7	9.3	3.8	1.8		
1957	5.2		8.2	11.8	1.6	5.4	7.5	10.9	.9	.9	10.2		7.0	4.7	5.5	11.0	9.5		
1958	6.1		7.7	3.9	2.3	2.9	4.2	1.8	3.4	-3.6	7.2		5.1	.9	4.5	1.3	-.5		
1959	-6.5		5.6	-1.1	7.8	4.6	3.8	-1.0	3.3	-2.8	8.8		3.9	2.0	4.9	5.3	2.1		
1960	7.9		9.7	6.6	4.4	6.9	7.6	-.5	9.3	3.7	3.4		5.0	6.9	2.3	5.5	1.6		
1961	6.8		10.3	6.2	4.8	1.3	4.9	6.0	8.2	2.8	4.5		1.9	3.6	4.2	.7	7.5		
1962	-1.5		5.2	4.7	5.0	5.0	4.6	5.7	9.1	-2.3	8.3		6.2	11.8	3.6	3.6	10.2		
1963	-2.4		1.6	4.8	2.8	4.7	8.0	1.6	3.8	-1.2	7.2		6.4	4.3	9.5	2.8	6.5		
1964	10.4		2.9	4.1	6.4	7.2	11.7	4.2	6.9	2.8	12.9		-1.0	9.3	4.5	1.3	11.2		
1965	9.3		2.8	4.6	3.6	2.9	6.4	6.8	4.7	1.0	5.7		9.6	5.3	4.5	7.9	8.8		
1966	.4		5.0	6.1	5.3	4.6	6.9	1.4	5.8	3.1	2.6		6.7	7.2	4.6	8.3	4.2		
1967	2.4		4.9	1.9	4.2	6.2	6.1	5.9	1.6	-5.4	4.6		8.0	5.4	4.0	4.6	6.6		
1968	4.6		9.3	3.0	5.9	5.9	8.0	4.8	.7	1.4	5.1		9.1	3.4	8.6	8.8	0.3		
1969	7.9		9.0	3.2	5.9	2.7	6.3	3.9	2.5	6.4			9.5	3.5	4.5	2.7	4.9		
1970	4.3		9.5	9.1	6.2	8.8	6.8	5.6	9.1	5.9			5.5	2.9	6.0	5.6	4.4		
1971	3.9		11.3	5.6	5.9	7.1	3.6	5.0	7.3	-0.5			5.1	4.5	5.5	5.5	5.1		
	3.9		10.4	2.0	7.3	7.0	7.4	5.7	5.3	-0.7			4.7	4.5	5.8	4.4	5.0		

Appendix B, Table 3.

Annual Percent Change in Consumer Price Index

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENF		CO R	EL S	GUAT	HOND	NIC		
1950																			
1951																			
1952																			
1953																			
1954	5.6		17.0	57.1	8.3	3.4	4.8	19.8	5.3	11.1	0.1		2.6	4.4	2.7	-4.6	8.4		
1955	10.5		29.0	90.9	-8.6	1.3	15.8	23.5	5.0	5.0	-0.5		3.8	5.7	1.7	7.5	18.6		
1956	14.3		22.0	52.4	6.4	-4.9	4.6	21.6	5.2	9.5	0.9		0.9	1.5	0.9	-3.2	-8.2		
1957	25.0		16.0	25.0	15.7	1.2	5.5	15.9	8.0	12.5	-2.1		2.0	-4.7	-1.1	-2.0	-3.3		
1958	23.3		18.0	30.0	14.0	1.2	12.1	6.2	7.7	22.2	4.8		2.7	5.7	1.1	2.6	4.8		
1959	112.5		33.0	36.5	7.4	0.7	2.4	10.0	13.0	36.4	5.1		0.2	-0.7	-0.5	1.1	-3.0		
1960	27.1		35.0	11.3	3.6	1.7	4.9	8.3	8.1	40.0	3.4		0.9	-0.1	-1.2	-1.8	-2.0		
1961	13.9		41.0	7.6	8.8	4.1	1.7	18.5	6.9	25.8	-2.9		3.3	-2.8	-0.5	1.6	0.2		
1962	26.0		53.0	12.9	2.6	2.9	1.2	1.3	6.5	11.5	-0.2		2.8	0.2	2.1	1.1	-0.3		
1963	25.8		72.0	44.8	31.6	5.9	1.0	2.2	6.3	20.7	1.1		3.0	1.5	0.1	3.0	.08		
1964	22.1		87.0	46.0	17.4	3.4	0.5	1.4	10.6	40.0	2.1		3.2	1.6	-0.2	4.5	4.6		
1965	29.0		62.0	29.1	3.8	3.2	3.7	3.8	16.7	57.1	1.8		-0.6	0.6	-0.8	2.4	2.9		
1966	31.6		46.9	22.9	19.9	4.1	4.3	2.9	9.6	74.0	1.7		0.1	-1.2	0.6	1.0	3.3		
1967	29.5		39.6	18.0	8.1	3.8	2.9	1.4	9.8	90.3	0.1		1.3	1.5	0.5	1.2	2.1		
1968	16.3		23.7	26.8	5.8	4.4	2.4	0.6	19.6	24.7	1.3		4.0	2.5	1.9	2.6	2.7		
1969	7.6		23.1	30.7	10.1	6.3	3.1	2.2	5.6	20.4	2.5		2.7	-0.2	2.2	1.8	0.3		
1970	13.5		19.2	32.2	6.9	5.1	4.7	-0.8	5.2	17.6	2.4		4.7	2.9	2.4	2.9	11.7		
1971																			

Appendix B, Table 4.

Annual Percent Change in the Supply of Money

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE		CO R	EL S	GUAT	HOND	NIC		
1950																			
1951																			
1952																			
1953																			
1954	20.9		23.1	42.9	19.1	17.0	12.0	23.5	8.7	7.2	4.0		11.7	9.7	2.1	15.5	14.9		
1955	17.3		18.8	43.3	3.7	6.7	19.5	33.3	6.2	5.8	11.2		4.6	2.6	11.7	-13.2	3.1		
1956	16.4		21.1	39.5	25.0	13.8	11.2	36.2	17.6	12.0	14.2		0.6	14.1	19.9	10.9	-2.1		
1957	16.9		34.8	28.3	13.3	4.1	6.6	3.0	3.8	8.4	32.4		8.2	0.4	14.9	-4.2	-2.8		
1958	43.4		21.0	33.8	21.0	0.9	7.4	19.3	6.9	27.6	10.1		7.8	-5.6	-9.8	-2.0	-3.2		
1959	42.9		46.7	35.9	11.1	12.6	15.7	9.8	24.4	41.6	-5.0		6.0	1.4	2.0	4.6	0.6		
1960	28.2		36.4	30.6	10.0	9.8	9.3	2.2	12.9	35.0	-7.0		1.6	-6.4	-0.9	-2.4	4.2		
1961	11.5		46.7	12.5	24.4	2.7	6.6	26.9	18.6	22.2	3.1		-3.1	-4.1	5.6	2.0	3.3		
1962	2.9		63.6	28.9	21.0	12.5	13.2	-2.4	3.7	-3.2	2.2		14.4	0.1	3.5	10.7	29.4		
1963	28.8		63.9	34.1	11.7	12.0	16.1	11.2	11.5	29.0	7.8		12.2	20.0	11.7	8.8	1.3		
1964	42.5		86.4	51.1	20.3	11.7	17.6	21.5	16.7	41.9	13.5		6.2	5.1	9.8	13.6	28.8		
1965	29.0		75.5	65.4	15.7	3.0	5.7	9.8	15.1	102.9	11.4		5.3	2.4	3.8	16.5	16.7		
1966	32.9		15.0	38.9	13.8	13.0	12.2	2.5	18.3	40.1	1.8		4.0	3.2	9.4	2.1	5.2		
1967	38.6		42.8	24.9	23.2	11.0	9.5	5.3	14.0	110.5	9.6		33.8	2.3	0.3	12.9	-4.6		
1968	27.8		42.7	38.3	14.5	18.5	14.1	7.2	19.8	53.5	8.4		6.5	5.6	0.7	10.9	-6.5		
1969	8.2		32.7	35.5	21.9	13.3	15.0	4.6	8.0	61.3	9.0		14.4	8.5	6.3	17.3	5.5		
1970	19.1		26.8	65.6	7.3	24.5	10.7	9.9	10.8	16.5	7.2		8.4	3.9	7.8	5.4	12.1		
1971																			

Appendix B, Table 5.

Gross National Investment as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	UPG	VENE		CO R	EL S	GUAT	HOND	NIC		
1950	19.1		14.8	9.0	14.3	8.8	11.8	7.9	15.0	10.1	26.1		16.9	15.1	10.5	12.0	10.0		
1951	20.0		18.7	9.6	13.5	11.3	13.2	10.9	18.1	9.6	27.2		17.0	14.5	10.5	13.3	13.1		
1952	18.8		16.6	9.2	13.9	9.5	14.0	14.9	20.9	10.3	32.0		18.4	14.0	9.2	17.0	15.2		
1953	17.8		15.5	9.1	16.8	11.0	13.9	18.3	23.4	11.0	32.2		20.2	14.0	8.2	16.7	15.7		
1954	16.6		16.9	8.2	17.0	13.6	14.1	14.9	17.2	11.4	33.8		19.4	13.3	7.8	12.7	18.7		
1955	17.5		13.6	8.6	18.1	13.7	14.4	11.6	19.0	13.5	27.6		17.3	13.1	9.9	13.2	17.6		
1956	18.4		14.3	8.5	17.2	14.3	16.9	11.0	23.9	13.4	28.4		18.7	12.7	15.0	13.1	16.0		
1957	19.9		14.3	10.9	15.1	13.4	16.7	17.4	25.2	15.7	28.9		19.6	12.4	16.1	13.7	14.5		
1958	20.0		16.4	10.5	16.5	12.6	14.9	16.8	23.3	10.3	26.5		15.3	12.0	14.2	12.8	14.1		
1959	17.1		18.6	9.8	17.1	13.7	14.4	14.7	19.8	11.4	23.6		19.1	11.9	11.5	11.9	14.8		
1960	21.9		17.1	15.7	18.5	13.8	15.1	17.0	17.2	15.1	20.2		17.1	14.0	10.2	12.7	13.5		
1961	23.7		17.3	17.1	18.7	14.0	14.7	17.0	19.7	16.0	1.75		14.3	11.7	10.6	11.0	13.8		
1962	22.8		18.1	13.7	18.5	12.5	14.0	10.4	21.1	15.6	17.7		14.4	10.8	9.4	13.5	14.6		
1963	18.4		17.7	17.5	16.8	12.6	14.6	10.2	19.2	13.0	17.9		14.6	12.1	10.0	14.8	13.2		
1964	16.5		16.6	16.9	16.3	12.4	16.3	11.1	16.2	10.5	19.4		18.7	14.3	12.5	14.1	16.2		
1965	15.8		14.8	16.3	15.9	11.9	16.1	14.4	17.0	10.7	20.4		23.2	15.0	13.2	14.3	18.4		
1966	16.3		15.4	15.6	17.0	11.3	16.7	15.7	16.8	10.7	20.8		20.8	15.6	12.2	15.5	20.8		
1967	18.4		14.6	15.0	18.0	12.1	17.6	16.5	15.2	12.9	21.0		20.4	14.7	13.5	17.3	18.9		
1968	19.2		16.7	15.6	19.9	14.0	18.1	14.8	13.3	12.3	23.7		20.5	10.9	14.4	17.6	15.1		
1969	19.7		16.6	15.5	19.6	26.1	18.0	15.8	12.8	10.1	26.4		20.8	11.3	13.8	19.0	16.7		
1970	19.7		16.5	15.2	20.4	20.8	18.2	14.9	13.0	10.0	24.2		22.2	12.1	12.8	19.7	15.6		
1971																			

Appendix B, Figure 4.

[illegible]

Appendix B, Table 6.

Government Expenditures as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VE NE	CO R	EL S	GUAT	HOND	NIC
1950	10.3		11.9	9.0	5.5	14.1	4.4	12.2	7.3	8.7	15.2	7.1	9.7	5.1	6.6	9.5
1951	9.5		11.8	8.6	5.9	13.8	4.2	4.6	8.2	8.7	15.0	7.7	10.9	5.6	6.9	8.7
1952	10.7		11.3	9.2	6.1	13.1	4.3	6.9	8.0	8.8	14.6	8.2	10.4	6.8	7.0	8.2
1953	10.1		13.9	10.3	6.8	13.8	4.5	7.1	8.7	9.0	14.4	7.4	10.5	6.7	6.9	8.4
1954	10.3		12.0	9.7	6.8	13.1	4.3	8.7	7.9	9.0	14.4	8.5	11.0	6.5	8.3	9.3
1955	9.9		12.1	10.4	7.1	12.8	4.4	9.2	7.7	9.4	14.0	9.9	12.7	6.1	7.5	8.7
1956	10.1		13.1	9.9	6.5	12.6	4.4	9.7	9.1	8.9	12.7	10.6	11.6	6.4	10.3	8.9
1957	8.5		12.6	9.8	5.8	12.1	4.6	7.9	8.8	10.2	12.4	10.4	9.2	6.9	9.2	8.5
1958	9.9		12.4	10.7	5.9	11.7	4.6	8.8	8.8	10.6	15.9	10.7	10.2	7.3	10.1	8.6
1959	8.7		12.5	10.4	5.9	12.1	4.6	7.9	9.1	8.7	13.2	11.3	10.4	7.3	9.3	8.3
1960	9.0		13.4	11.0	6.3	13.2	5.2	7.7	8.6	9.1	14.9	11.7	10.1	7.9	9.7	8.3
1961	10.3		13.4	11.0	6.8	14.2	5.3	7.2	9.5	11.2	14.8	12.4	10.4	8.1	9.8	8.4
1962	11.1		13.0	11.0	7.1	13.8	5.4	6.1	9.4	13.9	14.3	12.1	10.0	6.8	9.2	7.9
1963	10.2		13.4	10.2	7.4	13.0	5.8	7.0	9.8	13.7	14.9	13.3	9.5	6.6	9.4	8.0
1964	10.2		12.7	10.1	6.6	13.7	5.6	6.9	10.7	13.8	13.4	13.7	8.7	7.0	10.1	9.0
1965	9.6		11.6	11.4	6.6	14.1	4.7	6.9	11.1	14.8	14.0	13.7	8.8	7.5	9.2	9.7
1966	10.7		11.7	12.1	6.8	14.5	5.9	7.9	11.0	13.2	14.3	13.6	8.8	7.7	9.4	10.7
1967	10.1		12.0	12.0	7.0	13.8	5.9	7.9	11.5	14.5	14.2	13.9	9.2	7.9	9.5	11.2
1968	9.5		11.6	12.2	7.0	14.0	6.1	8.5	10.7	13.5	14.9	13.8	9.5	7.5	9.4	11.2
1969	9.4		11.7	12.2	7.2	16.4	6.1	9.2	12.6	15.3	14.9	13.9	9.9	8.0	10.4	11.3
1970	9.5		11.5	13.9	7.8	14.9	6.1	9.2	12.4	15.4	15.6	13.9	10.8	8.1	12.0	11.0
1971																

Appendix B, Figure 5.

[illegible]

Appendix 5, Table 7.

Exports as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
1950	8.8		9.6	10.4	11.7	19.7	17.2	16.5	20.5	16.8	34.3	26.7	22.1	13.3	30.2	22.5
1951	8.4		10.6	12.1	13.2	16.2	14.7	16.0	21.6	15.4	35.9	27.5	24.9	13.0	30.8	21.1
1952	5.4		7.1	13.1	12.5	20.0	14.0	14.4	20.1	12.3	3.60	30.8	24.3	14.4	28.5	20.9
1953	7.0		7.1	8.9	15.1	19.0	13.7	11.7	19.2	13.8	35.3	29.7	24.3	14.3	26.2	20.4
1954	5.5		7.7	7.5	14.6	21.1	16.1	13.8	20.7	11.9	35.2	29.1	25.6	14.0	20.8	19.4
1955	5.8		7.8	9.5	13.7	19.7	16.8	13.1	20.6	8.1	37.0	25.3	25.1	13.9	18.0	25.0
1956	11.1		7.1	11.7	15.8	19.3	16.1	15.8	20.9	10.3	38.5	22.1	24.5	14.3	24.5	21.9
1957	10.0		6.1	12.3	16.9	20.5	13.3	15.3	20.0	8.2	41.4	24.1	29.2	13.7	20.2	23.1
1958	8.6		6.1	10.1	19.2	19.2	12.0	15.1	19.7	11.7	34.8	24.3	23.0	12.7	20.9	25.1
1959	12.1		6.8	13.1	18.0	19.4	11.7	19.5	21.9	10.9	33.0	20.1	23.0	12.4	19.8	29.8
1960	10.8		6.1	14.1	14.5	18.4	10.8	17.8	24.3	14.4	34.1	20.8	20.5	13.1	18.0	23.6
1961	8.2		6.9	12.3	13.2	17.2	10.9	19.3	24.6	14.3	35.3	20.9	22.5	12.5	19.8	23.4
1962	11.0		5.2	11.9	12.5	19.7	10.9	13.7	23.3	11.6	35.0	23.5	23.4	11.9	20.8	25.3
1963	12.0		9.7	13.2	12.1	17.7	10.9	11.7	21.5	12.8	32.4	22.3	24.4	14.4	20.8	22.3
1964	9.2		7.5	13.2	12.0	17.1	10.0	12.5	21.7	12.2	35.1	25.1	25.7	15.3	21.7	26.7
1965	7.7		8.9	14.3	11.6	17.9	10.2	15.2	18.3	18.4	53.0	23.2	26.8	17.0	26.7	28.7
1966	7.9		7.7	16.0	12.3	16.8	9.9	13.4	18.1	16.0	50.5	25.8	24.9	19.3	28.5	27.3
1967	9.5		6.7	15.5	12.2	16.5	9.1	12.4	17.9	14.0	31.2	26.0	25.8	16.6	29.3	27.0
1968	8.7		6.9	15.1	13.3	16.0	9.1	12.6	21.1	15.3	32.3	29.3	25.8	17.5	31.2	25.9
1969	8.7		7.7	18.3	13.6	14.2	8.7	13.9	20.8	13.1	30.1	28.6	23.5	18.2	28.6	24.1
1970	8.5		7.9	16.1	14.6	15.6	8.1	15.3	21.1	12.0	28.9	29.4	24.3	19.0	27.8	25.3
1971																

Appendix B, Table 6.

Balance of Payments (Exports less Imports) as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
1950	0		1.5	1.3	0.1	6.4	2.2	4.3	3.0	4.5	9.3	-0.4	5.8	0	10.2	4.6
1951	-2.1		-2.2	0.5	0.2	0.5	-2.1	1.7	1.1	-3.5	11.7	-0.2	5.7	11.7	7.3	3.3
1952	-3.6		-3.0	2.3	0	5.6	-0.3	-1.1	-2.9	-0.9	9.3	0.3	4.3	2.2	1.6	0.8
1953	2.4		-0.7	0.3	0.2	2.0	-0.9	-3.2	-4.2	4.4	8.5	0.3	3.7	1.8	3.2	-3.5
1954	0		-0.3	0.5	-0.4	1.1	0.3	0	0.2	-0.7	9.5	-0.1	3.6	0.9	-1.0	9.9
1955	0		0.6	1.7	-1.4	1.1	1.3	-0.5	-3.5	-2.0	11.9	-2.6	2.8	0	-2.7	-5.8
1956	0.9		0.7	2.0	2.0	0	-0.1	2.5	-4.6	0.4	10.8	-8.9	1.1	-1.9	1.9	-5.8
1957	-2.6		-0.7	-1.6	2.6	2.2	-2.1	-5.3	-6.9	-5.6	8.1	-5.3	4.0	-3.6	-3.8	-4.0
1958	-1.8		0.1	-1.2	2.3	1.6	-1.5	-52.0	-5.9	1.4	4.8	-2.3	0.9	-4.5	-1.1	-2.9
1959	0.5		-1.0	1.1	3.0	2.2	-0.3	-0.6	-0.2	-2.9	6.3	-6.2	0.7	-2.6	0	0.6
1960	-1.2		-1.3	-3.0	-2.0	-0.4	-1.4	0	2.6	-5.7	13.6	-6.0	-4.6	2.0	-2.2	-0.5
1961	-3.4		-0.5	-4.4	-1.8	-0.4	-0.5	-1.2	1.2	-5.3	14.8	-4.7	0.1	-1.6	0.5	-1.3
1962	-1.6		-1.6	-1.5	-0.8	1.0	0.3	-0.9	0.5	-3.4	13.4	-3.2	0.5	-1.4	0.6	-3.5
1963	2.4		-0.4	-2.6	-1.2	0.5	0	-1.4	-3.2	0	13.4	-4.9	-1.8	-1.8	-3.5	-0.9
1964	0.8		1.1	-1.0	-1.5	-0.5	-0.8	-2.1	0.2	0.8	13.1	-4.1	-3.6	-3.1	-2.5	-1.3
1965	1.3		2.6	0.8	1.0	0.2	-0.4	-0.8	-3.1	6.1	9.7	-10.7	-2.4	-2.7	0.3	-2.5
1966	1.8		0.8	0.4	-3.0	0.6	-0.1	-2.9	-1.6	4.4	9.5	-6.1	-5.2	0.1	-1.8	-6.5
1967	1.9		-0.1	0.5	0.5	-0.7	-0.2	-3.5	-2.8	0.5	10.3	-6.5	-3.2	-3.5	-2.4	-8.0
1968	1.2		-0.7	0.5	-1.3	-3.1	-1.7	-4.5	1.6	2.6	7.3	-4.8	-1.7	-1.8	-1.6	-2.8
1969	0.3		0	2.6	-1.2	-6.2	-0.9	-4.7	3.1	0.9	6.1	-4.7	-2.2	-0.2	-3.2	-2.9
1970	0.5		-0.5	0.3	-1.7	-5.7	-2.1	-1.2	4.4	-0.8	5.4	-7.0	-0.5	0.9	-7.2	-2.1
1971																

Appendix P, Table 9.

Primary Exports as a Percent of Total Exports

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
1950	16.0		63.8	52.3	77.8	23.2	11.4	28.3	36.0	62.9	25.0	56.8	90.4	59.2	73.9	6.9
1951	15.1		59.8	45.6	75.2	35.5	21.5	27.4	34.5	49.7	24.2	54.2	89.8	66.9	66.3	14.8
1952	20.0		73.7	53.6	78.5	42.9	22.8	32.3	33.9	43.2	26.7	52.3	88.9	69.4	64.7	16.1
1953	17.9		70.7	43.6	81.6	44.6	31.3	32.6	29.8	61.1	26.8	44.7	86.3	75.6	60.4	18.4
1954	20.0		60.7	58.0	83.1	40.9	17.7	32.8	26.5	50.0	25.7	42.3	87.6	68.5	51.7	30.7
1955	27.7		59.3	64.6	83.7	54.7	21.8	37.2	25.4	57.6	25.1	41.1	85.6	70.7	47.3	43.1
1956	24.6		69.5	63.7	81.2	51.7	27.6	32.3	27.8	59.6	27.8	38.1	78.1	70.5	59.9	40.8
1957	23.2		60.8	54.4	43.5	52.0	35.4	28.5	21.3	40.9	33.3	38.6	82.2	74.5	51.9	36.0
1958	26.5		55.3	57.6	42.8	54.7	23.2	28.6	26.8	58.0	30.0	28.8	75.3	71.0	53.9	39.9
1959	26.3		57.2	63.5	42.2	63.3	25.4	30.8	22.3	55.4	26.7	24.9	67.3	72.8	46.8	45.1
1960	20.3		56.2	70.3	40.6	62.1	20.7	26.5	22.0	51.6	20.6	23.6	69.3	71.4	44.6	26.2
1961	22.6		50.6	66.4	40.6	63.8	19.4	28.1	21.2	62.9	20.4	24.8	61.1	67.4	53.9	30.2
1962	19.2		53.0	68.4	41.3	62.0	23.5	22.3	18.6	53.2	21.6	29.0	55.8	61.4	46.2	38.0
1963	24.5		53.2	68.9	63.6	57.3	19.9	26.2	19.4	51.5	19.0	27.1	48.8	57.9	39.4	39.9
1964	23.4		53.1	64.0	66.0	60.6	16.2	29.6	21.5	37.7	22.0	24.8	52.4	44.0	36.1	43.5
1965	22.3		44.3	70.1	54.0	54.0	18.5	32.7	21.5	47.2	23.3	25.3	50.9	48.8	42.1	46.1
1966	21.6		43.9	78.5	59.1	56.5	18.5	29.2	24.4	45.4	21.0	24.6	47.6	43.6	48.8	41.5
1967	26.3		42.6	76.1	51.5	52.1	12.6	36.0	26.7	49.7	20.9	21.5	47.6	34.1	50.8	38.2
1968	24.5		41.2	77.8	60.8	50.4	13.6	28.4	27.0	43.5	25.0	25.0	44.0	32.9	44.5	37.9
1969	26.9		35.2	91.0	53.9	53.4	13.7	22.2	30.1	33.6	24.0	29.5	44.2	31.6	44.4	29.4
1970	24.9		34.3	73.0	60.8	52.0	8.8	23.8	28.1	37.7	23.5	31.6	49.6	27.8	42.7	19.6
1971																

Appendix B, Table 10.

Bank Assets of Commercial Banks as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VE NE	CO R	EL S	GUAT	HOND	NIC
1950	53.2		37.8	7.9	12.7	11.9	12.9	13.5	17.2	29.3	9.1	21.0	9.2	5.5	4.2	9.5
1951	46.7		37.7	8.1	12.6	11.8	11.7	14.1	16.7	36.1	8.4	17.1	9.7	5.3	3.8	9.8
1952	46.3		36.8	8.5	13.9	11.4	11.8	14.3	19.4	34.0	8.9	16.9	9.8	5.5	3.9	8.7
1953	48.0		38.0	8.9	14.3	13.7	13.8	14.6	21.1	32.3	9.6	17.0	11.1	7.3	3.1	11.7
1954	51.7		35.6	8.7	15.9	14.7	13.1	13.8	19.8	36.2	11.0	18.3	11.9	7.4	3.8	16.7
1955	52.0		32.3	9.7	19.5	15.8	10.6	15.8	20.4	37.9	12.0	18.1	15.2	6.3	4.2	16.8
1956	46.5		31.4	9.8	23.1	18.0	10.3	15.1	20.9	41.1	7.5	20.7	18.8	6.8	6.2	18.5
1957	45.5		33.4	9.5	23.6	18.7	10.1	12.6	22.4	41.8	6.7	20.9	19.0	9.0	7.9	16.0
1958	46.0		34.3	9.7	22.9	17.9	11.1	12.3	22.1	47.0	15.4	20.6	18.8	10.8	8.2	16.3
1959	30.6		32.7	13.9	21.2	18.9	11.4	13.1	21.2	42.5	14.6	25.5	23.3	11.7	8.6	15.8
1960	30.2		33.8	17.3	20.9	20.1	11.6	12.0	19.2	35.1	18.4	27.8	25.9	10.5	9.4	17.4
1961	31.2		34.7	21.3	22.8	21.2	12.3	12.4	19.1	31.5	18.7	28.5	26.1	11.6	10.3	17.1
1962	28.3		33.1	25.5	25.2	20.2	13.0	11.9	18.5	36.5	16.9	26.4	23.7	11.9	11.2	18.0
1963	29.0		29.2	23.1	22.4	18.8	13.3	13.4	19.9	39.4	16.5	24.8	24.9	12.0	12.2	13.6
1964	30.0		28.5	22.3	21.1	18.9	13.0	15.5	18.6	41.1	15.0	27.1	24.7	13.5	12.3	15.8
1965	25.1		29.2	23.0	21.8	19.8	13.9	16.5	18.7	4.4	16.8	27.6	23.8	14.3	12.4	17.5
1966	26.6		25.9	21.7	22.4	19.0	13.8	18.3	18.0	23.7	16.8	28.0	26.0	16.2	13.4	21.8
1967	25.5		27.9	23.0	22.3	18.5	12.1	20.4	17.1	25.2	16.7	28.2	25.6	17.5	15.8	24.3
1968	28.2		30.6	21.7	22.6	21.3	11.6	19.2	16.7	16.0	19.4	27.2	25.8	17.8	16.7	23.5
1969	28.7		31.5	18.3	25.6	23.2	14.6	20.4	16.0	17.0	21.0	25.3	28.0	17.8	21.6	24.1
1970	28.6		31.7	18.6	21.2	23.3	14.3	20.6	16.5	18.7	21.3	24.7	27.6	16.1	24.5	23.5
1971																

Appendix B, Table 11.

Foreign Assets of Commercial Banks as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
1950	4.7		5.2	1.3	2.6	7.9	6.0	0.5	5.1	8.2	11.0	4.2	12.8	6.4	8.5	0.5
1951	2.6		3.4	1.1	2.7	5.9	15.1	1.5	4.4	9.7	10.1	5.2	12.0	6.3	7.0	3.7
1952	0.8		2.8	1.2	3.8	7.5	4.5	1.4	4.1	10.9	11.1	7.1	11.9	6.7	6.5	4.7
1953	2.3		2.6	1.1	3.5	6.0	5.5	0.7	3.6	11.3	11.4	7.2	11.7	6.1	5.0	4.3
1954	2.0		1.6	0.9	3.9	5.5	4.1	0.3	4.0	8.5	10.3	6.3	11.0	5.3	4.9	2.9
1955	1.3		1.3	0.9	1.5	3.6	6.7	0.7	3.9	5.7	10.4	6.8	9.7	7.1	4.1	4.5
1956	2.4		1.3	0.6	2.2	3.8	6.7	2.6	4.2	4.9	16.5	4.4	8.3	8.3	4.0	2.2
1957	1.3		0.8	0.3	-1.4	4.0	5.6	2.2	2.4	1.0	21.9	4.2	8.7	7.8	4.3	3.1
1958	-0.4		0.8	0.2	0.7	4.2	4.3	1.2	1.8	1.6	14.7	5.8	8.5	5.0	2.9	2.2
1959	0.9		0.6	0.1	0.3	4.7	4.7	-0.3	3.3	4.5	9.2	3.4	6.8	4.3	2.9	3.2
1960	2.3		0.4	-1.0	0.2	3.9	3.7	-1.2	4.5	4.8	8.0	0.4	2.7	4.8	2.7	2.2
1961	0.5		0.7	-3.7	-0.4	2.8	3.3	-0.5	5.7	12.1	7.4	-1.7	1.9	4.3	1.7	1.5
1962	-1.8		0.7	-6.7	-0.6	4.0	3.2	-0.3	5.6	-11.1	6.9	-2.2	2.6	2.8	1.7	2.7
1963	-0.1		0.6	-6.4	-2.1	4.8	3.9	0.2	6.0	-12.2	8.0	-0.5	4.3	3.4	1.6	3.3
1964	-0.3		0.8	-5.1	-1.6	4.8	3.6	1.0	6.0	-14.1	9.6	-2.2	4.1	3.1	2.2	3.9
1965	0.3		0.6	-3.6	-0.5	3.4	3.0	1.8	5.5	-15.7	9.2	-4.0	4.9	2.6	3.0	3.3
1966	0.2		2.9	-1.2	-1.7	4.0	2.7	1.7	4.9	-17.4	8.0	-5.0	3.0	1.7	3.1	0.6
1967	2.0		1.8	-1.6	-0.8	4.6	2.8	0.3	4.8	-5.3	8.6	-1.2	2.7	1.2	2.0	-3.6
1968	2.1		0.9	0.7	0.2	3.6	2.8	0.3	5.3	-1.4	9.4	-0.7	2.9	1.0	3.6	-4.7
1969	1.0		2.2	3.5	1.5	3.5	2.4	-0.7	5.3	-0.4	8.9	1.3	2.2	1.5	2.8	-5.4
1970	2.0		2.9	4.6	2.7	3.9	2.5	0.2	5.4	-1.8	9.1	0.5	5.2	1.3	0.7	-3.6
1971																

Appendix B, Table 12.

Money Supply as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VFNE	CO R	EL S	GUAT	HOND	NIC
1950	36.3		28.9	10.7	12.5	12.9	15.3	16.5	12.6	19.2	14.9	15.7	15.2	9.2	9.4	8.6
1951	32.0		28.3	10.7	12.7	11.1	13.3	16.6	12.2	18.4	14.2	15.9	15.5	8.8	10.2	9.8
1952	30.6		26.2	11.2	13.2	12.3	12.4	13.3	13.0	18.4	15.2	17.5	17.1	9.3	5.2	10.0
1953	33.4		26.6	12.7	14.6	12.0	13.8	11.0	13.7	18.2	15.6	17.1	17.6	10.4	10.5	11.8
1954	35.8		24.2	9.5	14.5	12.5	12.6	9.9	12.8	18.1	14.7	17.6	17.1	10.0	11.9	13.1
1955	35.8		22.9	9.0	14.5	11.1	12.3	10.0	12.4	17.6	15.1	16.3	17.0	10.7	9.6	12.7
1956	32.9		21.9	7.9	16.2	12.5	12.0	10.9	13.0	17.6	15.4	15.8	17.8	11.6	10.5	12.3
1957	30.6		24.0	7.3	15.4	12.1	11.2	8.7	12.3	16.1	17.7	15.7	16.7	12.8	9.4	10.9
1958	30.9		24.4	7.5	16.1	11.6	10.8	9.1	11.8	18.9	17.9	15.7	15.4	11.3	8.8	10.6
1959	23.1		25.4	7.1	15.7	12.5	11.7	8.9	12.6	20.0	16.2	16.0	16.1	11.3	8.8	10.5
1960	22.9		25.3	9.4	15.2	12.6	11.3	7.8	11.8	17.7	15.1	15.3	14.4	10.9	8.5	10.7
1961	21.3		25.9	9.3	16.7	12.2	11.3	8.6	12.5	16.9	15.0	14.5	13.5	11.3	8.3	10.4
1962	17.8		26.0	10.0	18.2	12.8	11.8	7.3	11.3	15.1	13.8	15.2	12.1	9.9	8.7	12.2
1963	18.6		23.5	9.1	15.7	13.1	12.6	7.7	11.4	16.5	13.9	15.6	13.9	10.0	9.2	9.2
1964	19.5		22.7	9.0	15.2	13.2	12.7	8.9	11.1	16.1	13.6	16.1	13.3	10.8	9.7	12.1
1965	16.4		25.0	10.6	15.6	12.8	12.4	9.2	10.7	20.3	14.4	15.5	12.8	10.9	10.2	13.1
1966	17.5		19.7	10.7	14.7	13.1	12.5	8.7	10.8	15.0	14.0	15.0	12.4	11.4	9.9	13.2
1967	18.7		21.1	10.2	16.1	13.2	12.4	10.8	10.8	13.8	14.3	18.6	12.1	11.0	10.5	11.7
1968	20.5		21.6	10.4	15.9	14.2	12.7	8.9	10.8	133.2	15.7	17.9	12.4	10.3	10.8	10.0
1969	18.9		21.5	9.7	16.9	14.7	13.0	9.5	10.6	15.5	16.0	18.6	12.9	10.2	12.2	10.0
1970	19.2		20.8	11.1	15.5	15.0	12.8	9.9	10.3	15.0	15.8	17.5	12.4	9.0	12.0	10.4
1971																

Appendix B, Table 13.

Percent Change in the Consumer Price Index

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
1950	28.6		0	33.3	20.4	-1.2	9.3	72.0	14.0	0	2.1	10.5	15.6	8.7	1.4	19.6
1951	44.4		0	0	9.1	11.2	12.6	62.6	10.1	15.3	7.1	6.7	16.2	4.1	3.3	19.7
1952	38.5		25.0	50.0	-2.9	3.2	14.1	220.0	6.1	6.7	1.1	-2.9	-2.4	-2.0	-0.7	1.4
1953	0		20.0	16.7	17.1	0.2	-1.3	79.8	9.1	12.5	-1.3	0.5	7.1	2.9	1.6	12.2
1954	5.5		17.0	57.1	8.3	3.4	4.8	19.8	5.3	11.1	0.1	2.6	4.4	2.7	-4.6	3.4
1955	10.5		29.0	90.9	-8.6	1.3	15.8	23.5	5.0	5.0	-0.5	3.8	5.7	1.7	7.5	18.6
1956	14.3		22.0	52.4	6.4	-4.9	4.6	21.6	5.2	9.5	0.9	0.9	1.5	0.9	-3.2	-8.2
1957	25.0		16.0	25.0	15.7	1.2	5.5	15.9	8.0	12.5	-2.1	2.0	-4.7	-1.1	-2.0	-3.3
1958	33.3		18.0	30.0	14.0	1.2	12.1	6.2	7.7	22.2	4.8	2.7	5.7	1.1	2.6	4.8
1959	12.5		33.0	36.5	7.4	0	2.4	10.0	13.0	36.4	5.1	0.2	-0.7	-0.5	1.1	-3.0
1960	27.1		35.0	11.3	3.5	1.7	4.9	8.3	8.1	40.0	3.4	0.9	-0.1	-1.2	-1.8	-2.0
1961	13.9		41.0	7.6	8.8	4.1	1.7	18.5	6.9	23.8	-2.9	3.3	-2.8	-0.5	1.6	0.2
1962	26.0		53.0	12.9	2.6	2.9	1.2	1.3	6.5	11.5	-0.2	2.8	0.2	2.1	1.1	-0.3
1963	25.8		72.0	44.8	31.6	5.9	1.0	2.2	6.3	20.7	1.1	3.0	1.5	0.1	3.0	0.8
1964	22.1		87.0	46.0	17.4	3.4	0.5	1.4	10.6	40.0	2.1	32.	1.6	-0.2	4.5	4.6
1965	29.0		62.0	29.1	3.8	3.2	3.7	3.8	16.7	57.1	1.8	-0.6	0.6	-0.8	2.4	2.9
1966	31.6		46.9	22.9	19.9	4.1	4.3	2.9	9.6	74.0	1.7	0.1	-1.2	0.6	1.0	3.3
1967	29.5		39.6	18.0	8.1	3.8	2.9	1.4	9.8	90.3	0	1.3	1.5	0.5	1.2	2.1
1968	16.3		23.7	26.8	5.8	4.4	2.4	0.6	19.6	24.7	1.3	4.0	2.5	1.9	2.6	2.7
1969	7.6		23.1	30.7	10.1	6.3	3.1	2.2	5.6	20.4	2.5	2.7	-0.2	2.2	1.8	0.3
1970	12.6		19.2	32.2	6.9	5.1	4.7	-0.8	5.2	17.6	2.4	4.7	2.9	2.4	2.9	1.7
1971																

Appendix B, Table 14.

Direct Foreign Investment as a Percent of Gross National Product

	ARG	BOL	BRAZ	CHIL	COL	ECUA	MEX	PAR	PERU	URG	VENE	CO R	EL S	GUAT	HOND	NIC
1950	0		0.8	-0.2	-0.1	-1.2	1.8	0	-0.8	1.3	0.5	0.3	0	0.2	0.1	1.0
1951	0		1.1	1.7	0.2	11.2	2.0	1.0	2.3	0.8	0	1.0	-0.1	-0.1	10.4	0.5
1952	0.1		1.3	2.6	0.4	3.2	0.9	0.1	3.7	3.2	4.1	0.4	0	0.2	12.9	0.8
1953	0.1		0.7	3.5	0.2	0.2	0.6	0.6	3.3	-0.5	4.2	0.1	0.1	-0.3	6.2	2.2
1954	0		0.6	2.9	1.0	3.4	1.2	0.3	2.0	-0.6	1.0	0.3	0.1	-0.2	1.8	0.5
1955	0.6		0.7	2.6	0.8	1.3	1.6	0.1	1.6	-0.8	-0.1	1.0	0.1	0	0	0.7
1956	1.1		0.9	1.2	0.2	-4.9	1.5	1.2	2.9	1.5	11.1	1.1	-0.8	0.8	0.2	0.7
1957	1.0		1.8	1.6	0.1	1.2	1.4	0.3	4.5	1.5	9.6	0	-0.7	1.9	1.7	0.9
1958	2.2		2.2	1.8	0	1.2	1.0	2.1	5.8	1.8	1.3	0.1	0.3	1.5	-2.8	0.7
1959	2.8		0.9	1.4	0	0	0.7	1.3	4.0	1.1	-0.7	1.6	0	2.0	-1.4	0.3
1960	2.9		0.5	0.8	0.1	1.7	-0.1	1.6	0.1	0.9	-1.9	0.3	0	1.7	-4.0	0.5
1961	-0.1		0.5	1.2	0.1	4.1	0.9	0.4	0	0.3	-0.3	1.6	1.4	0.7	-3.2	0.5
1962	0.7		1.0	1.1	0.3	2.9	0.9	0.8	0.5	0.3	-3.1	2.4	2.8	0.8	-0.6	1.5
1963	0.6		0.4	-0.8	0.4	5.9	0.8	1.0	-5.4	0.5	-1.0	2.8	2.3	0	0.9	1.0
1964	0.2		0.7	-0.2	1.1	3.4	0.9	0.9	0	0.7	-0.2	3.0	3.4	0.5	2.3	0.9
1965	0.2		0.9	-0.1	0.5	3.2	1.1	0.7	0.7	1.4	-0.1	0	2.4	1.1	2.5	1.6
1966	0.2		0.7	-0.5	0.8	4.1	0.8	0.5	0.4	0.4	1.2	2.3	1.0	1.1	1.5	2.0
1967	0		0.4	0.1	0.8	3.8	0.5	0.6	0.8	0.8	0	2.3	1.1	1.3	1.5	2.2
1968	0		0.5	2.1	0.9	4.4	0.8	0.5	-0.4	-0.5	1.6	0.6	0.9	1.5	2.3	2.4
1969	0		0.7	1.0	0.8	6.3	0.1	1.0	-0.1	0.3	1.8	2.9	0.7	1.5	1.4	1.7
1970	0		0.3	0.3	0.6	5.1	1.0	0.7	-1.3	1.0	0.4	2.8	0.4	1.2	1.2	1.8
1971																

Appendix C

Appendix C, Table 1.

Worksheet for Decoding Regression Coefficients

Variables in equation: Significant economic and statistical variables.
 Variables changed: Insignificant variables dropped, T test
 R - SQ A = .700

	Variable number i	Unadjusted Equation A		Paired F Tested Var. No.	β Decoded $aX_1 + a_1X_1D_I$	
		β	T value		Before $D_I = 1$	After $D_I = 0$
$(X_i) =$						
	a	.063				
% Δ CPI	4	.670	9.10			
% Δ M	5	.123	1.81			
I/GNP	6	-1.987	2.92	6, 32	.03	-1.987
G/GNP	7	-2.553	3.03	7, 33	.14	-2.553
E/GNP	8	1.110	2.73	8, 34	.01	1.110
E_1/E	9					
F/GNP	10					
TD	11	.038	2.99	11, 37	.008	.038
BA/GNP	12					
FA/GNP	13					
M/GNP	14	2.037	3.16	14, 40	.167	2.037
% Δ CPI	15	.698	4.99	15, 41	.10	.698
DI/GNP	16	5.413	2.28	16, 42	.01	5.413
MK	17	-.028	3.21	17, 43	.003	-.028
$(X_{26+i}) \cdot (D_I)$ where (X_{26+i}) =						
% Δ CPI	30					
% Δ M	31					
I/GNP	32	2.01	2.67	Unadjusted Equation		
G/GNP	33	2.69	2.92			
E/GNP	34	-1.10	2.42			
E_1/E	35			Before $D_I = 1$		
F/GNP	36					
TD	37	-.03	2.41	After $D_I = 0$		
BA/GNP	38					
FA/GNP	39					
M/GNP	40	-1.87	2.77			
% Δ CPI	41	-.59	4.01			
DI/GNP	42	-5.414	2.18			
MK	43	.031	2.83			