INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

NOTE TO USERS

This reproduction is the best copy available.

UMI

GLOBALIZATION AND LATIN AMERICAN ECONOMIES 1960-1995:
A NETWORK ANALYSIS MODEL AND
IMPLICATIONS FOR ECONOMIC GROWTH

by

Giovanni E. Reyes

B.S., University of San Carlos, 1990

M.P.I.A., University of Pittsburgh, 1993

Submitted to the Graduate Faculty of the School of

Public and International Affairs in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

University of Pittsburgh

2001

UMI Number: 3038271

Copyright 2001 by
Reyes, Giovanni E.

UMI®

UMI Microform 3038271

Committee signature page

ii

Graduate School of Public and International Affairs
University of Pittsburgh

Oral Dissertation Defense: Evaluation

Giovanni E. Reyes
Student's Name

Date: _July 18/01_

Time: _3 p. m._

Place: _3 - 6 - 52._

Dissertation Title: _Globalization and Latin American Economies 1960-1995: A Network Analysis Model and its Implications for Economic Growth_

_____ (Pass)   Fail
Chairperson

_____ (Pass)   Fail
Member

_____ (Pass)   Fail
Member

_____ (Pass)   Fail
Member (Outside)

Four (4) passing votes needed - circle one and sign.

Note: All member of the committee must attend the Dissertation Defense.
    Unavoidable exceptions must be approved in writing by the Doctoral
    Program Coordinator prior to the defense.

Comments (*including description of any necessary revisions*). Attach a separate memo
if necessary.

Doctoral Program Coordinator _William F. Matlack_ Date: _8/28/01_

© Copyright by Giovanni E. Reyes
2001

iii

GLOBALIZATION AND LATIN AMERICAN ECONOMIES 1960-1995: A NETWORK ANALYSIS MODEL AND IMPLICATIONS FOR ECONOMIC GROWTH

Giovanni E. Reyes, PhD

University of Pittsburgh, 2001

This study examines the main theoretical features of globalization, as a theory of development. This theoretical context is applied to international trade. The aim of this study is to contribute both an analytical explanation and empirical evidence about the development processes of Latin American economies from 1960 to 1995.

Before the discussion and empirical assessment of integration as a main feature of globalization is addressed, an historical description of Latin American economies provides an understanding of the economic, and political forces affecting economic development in the region. Latin American countries are studied in terms of their international trade relationships with other countries with particular emphasis on the United States and Canada, Western Europe, and Japan.

The central research questions are: (a) Is there evidence that the processes of globalization have implied more integration from Latin American countries within the international economic scenario? and (b) Are exports the main driving forces behind economic growth of Latin American nations?

iv

This study shows that international trade relations and the economic adjustment processes carried out in Latin American countries are good examples of links reflecting the current trends of globalization. Export leading policies from Latin America are having a complete and permanent effect on these societies. For this reason this dissertation includes the study of repercussions on economic growth.

Major conclusions of this research are: (i) based on international trade relationships of Latin American countries, a process of globalization and segregation is taking place; (ii) economic and social integration is needed to reinforce development processes within a context of respect for cultural values, respect for human rights, satisfaction of genuine needs, and a sustainable use of natural systems; (iii) "gravitational" elements as factors of international trade are evident: reinforcing international trade are factors such as openness of economies, complementary structure of exports, size of economies, and historical and social elements; factors opposing international trade are related to geographical distance, competitive/substitute role from other nations, and adverse historical and social aspects; and (iv) this study did not find any significant relationship between the levels of integration and economic growth.

v

ACKNOWLEDGMENTS

The completion of this dissertation could not be possible without the help and assistance of a group of persons who were willing to devote their time, energy and dedication. This characteristic is especially true of my dissertation advisors: Professors Héctor Correa, Siddharth Chandra, Thomas Schott and Clyde Mitchell-Weaver. Their comments, guidance and willingness to devote immediate attention to my work, made my task much easier.

I would like also to express my appreciation to Professor Louise Comfort who directed me through the first stage of this study. I am also indebted to many professors during my postgraduate studies, especially Sandra Williamson, Rajen Mookerjee and Iris Young.

This thesis is dedicated to my parents María Luisa Ortiz and Efraín Reyes Gramajo. Their example has been a permanent inspiration to me. Special thanks to my brothers and sisters, and to Karen Elizabeth, for their enduring support and encouragement.

I also want to express my gratitude to my editors Bernadette Urbani and Kendall Stanley. Their infinite patience and dedication made possible the final outcome of this dissertation.

vi

TABLE OF CONTENTS

LIST OF TABLES

ix

LIST OF FIGURES

ABBREVIATIONS

AID	Agency for International Development
ANPACT	Andean Pact
BOP	Balance of payments
CACM	Central American Common Market
CBI	Caribbean Basin Initiative
CEPAL	Comisión Económica para América Latina y el Caribe (Economic Commission for Latin America and the Caribbean)
CET	Common External Tariff
CIF	Costs, insurance, freight prices
ECLAC	Economic Commission for Latin America and the Caribbean
FAO	Food and Agriculture Organization (UNO)
FLACSO	Facultad Latinoamericana de Ciencias Sociales (Latin American School of Social Sciences)
FOB	Free on board prices
GATT	General Agreement on Tariff and Trade
GDP	Gross domestic product
GNP	Gross national product
GNP/pc	Gross national product per capita
GT	Globalization theory
IDB	Inter-American Development Bank
IMF	International Monetary Fund
ISI	Import substitution in industry
LAFTA	Latin American Free Trade Area
LDCs	Less developed countries
MDCs	More developed countries
MERCOSUR	Mercado Común del Sur (Southern Common Market)
MIT	Massachusetts Institute of Technology
NAFTA	North America Free Trade Agreement
NTBs	Non tariff barriers
OECD	Organization for Economic Cooperation and Development
SELA	Sistema Económico Latinoamericano (Latin American Economic System)
TOT	Terms of trade
UCA	Universidad Centro Americana (Central American University)
UNDP	United Nations Development Program
UNO	United Nations Organization
UPEB	Unión de Países Exportadores de Banano (Union of Banana Exporter Countries)
US$	United States dollar
WB	World Bank
WTO	World Trade Organization

Chapter 1

INTRODUCTION

This dissertation is a study based on the theory of globalization - as a theory of development - which is applied to international trade as one aspect of international economics. There are three other main theories of economic development in addition to globalization: (a) modernization, (b) dependency, and (c) world systems. For purposes of this document, development is defined as a social condition within a nation, in which the authentic needs of its population are satisfied by the rational and sustainable use of natural resources and systems.[1] This study covers a particular region: Latin America[2] during the period 1960-1995.

Latin American countries are studied in terms of their international trade relationships with other countries in the world, with particular emphasis on the United Statesand Canada, Western Europe, and Japan. This study contains statistical measures and methods related to economic and social data from Latin American countries, including the

---

[1] This utilization of natural resources, within the concept of development, is based on a technology which respects the culture of the population of a given country. This general definition of development includes the specification that social groups have access to organizations, basic services such as education, housing, health services, and nutrition, and above all else, that their cultures and traditions are respected within the social framework of a particular country. In economic terms, this definition of development indicates that for the population of a country, there are employment opportunities, satisfaction -at least- of basic needs, and the achievement of a positive rate of access to national wealth. For further readings regarding the conceptual basis for development, see D. Chirot, *Social Change in a Peripheral Society: The Creation of a Balkan Colony* (New York: Academic Press, 1993); and E. Etzioni, *Social Change* (New York: Basic Books, 1991).

[2] In this document, the term "Latin America," when nothing else is added, includes Caribbean countries.

1

small economies of that region: Guyana, Ecuador, Haiti, Bolivia, Central American nations, and Trinidad and Tobago.

The central research questions are: (a) Is there evidence that the processes of globalization have increased integration of Latin American countries into the international economic framework?, and (2) What have been the main driving forces behind the economic growth of Latin American nations from 1960 to 1995?

With these questions in mind, this study begins with the following main hypotheses or research statements: [3] (a) Latin American countries have formed a trading block, increasing exports and imports, with the United States during the past 36 years; and (b) The export oriented policies implemented in Latin American economies, especially since 1976, have been the main force behind the economic growth of these nations. The first statement is related to the systemic or external conditions of Latin American countries and their trading partners. The second refers to the sub-systemic or domestic circumstances within these nations.

This study shows that the international trade relations and economic adjustment processes carried out in Latin American countries are good examples of links, as part of the current trends of globalization, especially in terms of international economic issues. The public decisions that were necessary to promote the export oriented policies from Latin America have had a profound and permanent effect on these societies. For this reason, this

---

[3] This study utilizes the term "hypothesis" in the denotation of research statements. The main idea is to determine relationships among variables rather than strictly cause-effect aspects of the particular variables under study. An eventual follow-up of this research might be able to establish those cause-effect links in specific cases. For a discussion on methodological issues and dilemmas, see A. Kimmel,A. *Values in Applied Social Research* (Newbury Park, CA: Sage, 1988), pp. 36-40, 66-84; and for issues related to inference in social research, see G. King, et al., *Designing Social Inquiry* (Princeton, NJ: Princeton University Press, 1994), pp. 34-51, 63-74, 75-91.

study includes examination of repercussions of economic growth due to macroeconomic variables.

The methodology used to answer the question regarding the degree of integration of Latin American nations within the current scenario of globalization is based on the determination of network analysis models. The network analysis is derived from matrices of international trade relationships among Latin American countries and their main trading partners. Fifty countries were considered for each of the eight following matrices: 1960, 1965, 1970, 1975, 1980, 1985, 1990, and 1995. The network analysis models contained one main feature: the positional and cohesion analysis allowed determination of which countries had been playing the roles of core, semiperipheral, and peripheral nations during the period 1960-1995. The cohesion analysis showed which countries had formed cliques: that is to say, countries which had strong international trade relationships among themselves and weak relationships with other nations.[4]

In addition to the determination of positional analysis (core, semiperipheral and peripheral countries) and cohesion analysis (countries forming cliques), another important indicator in this first methodological stage is a study of the proportion of Latin American countries within the worldwide international economic scenario. This study of proportion refers to exports and imports not only from each nation, but also from the Latin American region as a whole. The latter is extremely important in order to determine the amount of penetration of this region and its individual countries into the international trade scenario affected by the current globalizing trend.

---

[4]   The second part of the methodology incorporates elements from the positional analysis into the macroeconomic model determination. Conceptual and operative elements for the first methodological stage of this study have been incorporated from several sources, including H. Priesmeyer, *Chaos System Software: Business Edition* (Fair Oaks Ranch, TX: Management Concepts, Inc. 1996), pp. 1-3, 13-28.

One of the main points of the topic under study relates to the need for establishing a quantitative measure of the presence of Latin American countries in the international economic scenario, specifically in international trade relations. This has a direct relationship to whether or not the process of globalization implies increased integration or segregation among countries at a worldwide level.

The quantitative measure of the presence of Latin American countries in the international economy also has the possibility of constituting a methodological tool which in turn would be useful to test the practical or empirical foundations of theories such as dependency and the world systems. The methodology used by this study to establish interrelations among countries is based on network analysis models.

Another point of importance aims to establish a comparative method for studying export promotions from Latin American countries during the period 1960 to 1995, and how these policies have affected regional economic growth. In this way, this study does not isolate the national conditions of each country but rather takes into account a related perspective which is based on a significant period of time.

The methodology for answering the second question - What have been the main driving forces behind the economic growth of Latin American nations?- takes into account evidence of economic growth and exports for each Latin American country. In this context, economic growth is a function of the following factors: labor force, investments, exports, degree of openness of the economy, and specific classifications of countries. This model is based on the work developed by Gershon Feder.[5] The particular classifications of countries

---

[5]   G. Feder, "On exports and economic growth," *Journal of Development Economics* 12 (1982): 59-73.

are introduced into the model as dummy variables, that is, with values of zero or one. These country distinctions are based on: (a) structure of exports (oil, manufacturing, and agriculture/mining); (b) Latin American regions (Mexico/Central America/Caribbean, Andean, and Southern Cone); (c) positions (semiperipheral and peripheral countries); and (d) size of economies (large, medium, and small). This multiple regression model is studied during four time periods: 1960-73, 1974-82, 1983-90, and 1991-95.

From the comparative historical perspective, this document takes into consideration four specific periods:[6] a) 1960 to 1973, a period of stability in international economics; b)1974 to 1982, a period of economic growth in Latin America based on the generation of external debt; c) 1983 to 1990, a period during which the region implemented programs of structural economic adjustment and in several cases processes of economic stagnation; and d)1991 to 1995, a period with more general economic growth and continued implementation of economic adjustment plans.

Among the major reasons to carry out this study are: First, the need for a global perspective in terms of studying the international integration of Latin American partners, especially with the major world economic powers. In this respect the export oriented policies have had a crucial role. Second, it is important to learn, from a comparative point of view and considering a significant period of time, using empirical data, what the results of the globalization processes have been.

---

[6] Elements for a more precise characterization of these time periods in terms of the international conditions of the world economy can be found in S. Ambrose, *Rise to Globalism* (Harrisonburgh, VA: Donnelley & Sons, 1989), pp.158-80, 301-22. This book shows the links between international economic circumstances and United States international policy since the Second World War. See also M. Waters, *Globalization* (London: Routledge, 1995), pp. 96-122, 158-63; and I. Hauchler, *Global Trends* (New York: Continuum Publishing Co., 1994), pp.1-27, 199-257, 345-65.

Finally, it is necessary to underline from a comparative perspective, what have been the major characteristics and the effectiveness of "inward development" models based on import substitution strategies and the more "open development" policies based on the promotion and diversification of exports. Moreover, it is important to establish what the impact of these models has been on macroeconomic conditions at a national level.

The main objectives of this document are as follows: (a) to establish a quantitative way in which Latin American nations have been integrated or not into the international economic framework during the period 1960 to 1995, and (b) to determine whether or not the export macroeconomic variable has been the main cause of economic growth within these Latin American countries.

This study also aims at determining another important aspect, that is, the performance of the Latin American economies facing different international economic scenarios after the Second World War. During this period, the international trade system and the international financial mechanisms used the Bretton Woods international institutional frame, and then a more flexible pattern in terms of the exchange rate mechanism and more dynamic technological instruments to carry out financial and trade transactions. Latin American nations in turn changed their macroeconomic patterns, based on the import substitution model, into a more open scenario in which export diversification efforts had an important role in regional economies.

After the first chapter of this work, devoted to the introduction, the literature review, containing the main conceptual frame of the study, is presented in Chapter Two. It discusses the major theoretical elements concerning the globalization postulates related to development, and how these concepts are applied to economic conditions. It also shows how

the theory of globalization is related to the contemporary elements of technological modernization and the growing scenario of the increasingly interconnected systems of communications worldwide. The chapter ends with a summary of the main theoretical elements on which this study is based.

Chapter Three contains the research design, including general and particular hypotheses, the specific objectives to be studied, the particular characteristics of the methodology, statistical test and expected results. This research design allows the reader to have a complete vision of the structure of this comparative study.

Chapter Four presents the main conditions under which Latin American economies have developed their participation in the international trade system. These conditions are divided into (a) a summary of the economic history of Latin America from 1960 to 1995, and (b) the major theoretical foundations for undertaking economic adjustment in Latin America, especially since the end of the seventies.

Chapters Five and Six present the results of the study. They also include the statistical tests that were applied and discussions relating to the development of the economic and social features of Latin American countries from 1960 to 1995. Presented here are the interrelations of the international trade links among Latin American nations and their main trading partners worldwide, and the impact of exports on economic growth.

Chapter Seven presents the conclusions, including the general and particular interpretations based on implementation of the research design and the results obtained. Here the concept of a current worldwide system of globalization and segregation is underlined, a conclusion that is evident from the insertion of the Latin American nations into the international trade system during the 36 years from 1960 to 1995. This feature of global

segregation is particularly evident in those small economies of the region which are more

peripheral and which base their exports on primary agricultural products.

Chapter 2

LITERATURE REVIEW

This chapter is divided into three sections. The first one summarizes the theory of globalization as a theory of development. This is the central theoretical principle of this entire study, since what we are examining is the ability of Latin American trade to achieve, if any, more integration within the international economic system. The second section presents the theoretical foundations and links between (a) development and globalization, and (b) the technique of network analysis. The main idea here is to show the relatively new application of network analysis to the field of international economic relations. The third section presents a summary of the theoretical framework to support the research design, which is the subject of the next chapter.

2.1. Development Theory: Globalization

For purposes of this dissertation, the concept of globalization is based on the work of Dean Baker, Gerald Epstein and Robert Pollin.[7] These authors recognize that globalization is not entirely new and they emphasize the relative and varied effects that it is having in different areas of the world. A compressed summary of their basic approach toward globalization establishes two principal meanings:

---

[7] See D. Baker, *et al.*, *Globalization and Progressive Economic Policy* (Cambridge: Cambridge University Press, 1998), pp. 2-3, 6-8, 15-16, 20.

9

a) As a phenomenon, it implies that an increased interdependence exists among different regions and countries of the world in terms of finances, trade and communications. This study works with these international trade links in two ways: (1) among Latin American countries, and (2) between Latin American nations and their main international trade partners;

b) As a theory of economic development, one of its major assumptions is that a growing level of integration is taking place among different regions of the world, and that this integration is having an important impact on the economic growth of individual nations and their social indicators.

The fundamental premise of globalization is that an increasing degree of integration among societies plays a crucial role in most types of social and economic change. This premise is widely accepted. However, there is much less consensus on its fundamental organizing principles and laws of motion. Neoclassical economic theories that are based on comparative advantage,[8] international relations approaches that stress geopolitics,[9] and world-systems perspectives that emphasize "unequal exchange" offer contrasting models of the international system.

Baker, in particular, agrees in recognizing that the theory of globalization emerges from the global mechanisms of increasing integration, with particular emphasis on the sphere of communications and economic transactions. In this sense, this perspective is similar to the world-systems approach. However, one of the most important characteristics of the globalization position is its focus and emphasis on cultural aspects and their communication

---

[8]   P. Vuskovic, *Pequeños países periféricos en America Latina* (Managua, Nicaragua: CRIES, 1990)

[9]   N. Keith, *New Perspectives on Social Class and Socioeconomic Development in the Periphery* (New York: Greenwood Press, 1990).

worldwide. In addition to technological, financial and political ties, globalization scholars argue that modern elements for development integration are the cultural and economic links among nations. In this cultural communication, one of the most important factors is the growing connectedness of people around the world,[10] made possible by the increasing flexibility of technology.

Following from the principal arguments of Maddison,[11] the main tenets of the theory of globalization can be stated as follows:

a) Recognition that global communications systems are becoming increasingly important every day, and through this process all nations are interacting much more frequently and easily, not only at the governmental level, but also among the citizenry;

b) The main communications systems are operating among the more developed nations, and the use of these mechanisms is also spreading to less developed nations. This increases the possibility that marginal groups in poor nations can communicate and interact within a global context using the new technology, and therefore can integrate themselves within the "global village," which represents the current scenario in worldwide communications and transactions;[12]

c) In terms of economic activities, the new technological advances in communication are increasingly accessible to local and small businesses. This is creating a

[10] See B. Kaplan, *Social Change in the Capitalist World* (Beverly Hills, CA: SAGE, 1993); and I. Gough, *Economía política del estado de bienestar* (Madrid, España: Blume, 1992).

[11] A. Maddison, *Dynamic Forces in Capitalist Development* (Oxford: Oxford University Press, 1991.

[12] At the present stage of the information-communications revolution, 10 multinational corporations control 65 percent of the world semiconductors market, 9 account for 89 percent of the world telecommunications market, and 10 others control the vast majority of the world computer market. See A. Maddison, *Dynamic Forces in Capitalist Development* (Oxford: Oxford University Press, 1991), pp. 118-19.

completely new environment for conducting economic transactions, utilizing

productive resources, equipment and trading products, and taking advantage of

"virtual monetary mechanisms." From a cultural perspective, the new

communication products are unifying patterns of contact around the world, at least

in terms of economic transactions under current conditions;

d) The concept of minorities within particular nations is being affected by these new

patterns of communication. Even though they are not completely integrated into

the new world system, the powerful business and political elites in each country

are a part of this interaction around the world. Ultimately, the business and

political elite continue to be the decision makers in developing nations;

e) Social and economic elements are determinant circumstances which affect the

standards of living of every nation.[13] The specific impacts that social and

economic variables can have on social indicators in the Latin American region

during the period 1960-1995 will be considered in this study.

Michael Moore, in particular, emphasizes that the main assumptions of the theory of

globalization can be summarized in three principal points. First, cultural and economic

factors are the determining aspect in every society. Second, under current global conditions,

and when we are studying a particular system (e.g., financial or trade sphere), it is not as

important as previously thought to use the nation-state category as the unit of analysis, since

global communications and international ties are making this category less relevant. Third,

with growing standardization in technological advances, more and more social sectors will

---

[13] See a development of these concepts in M. Moore, *Globalization and Social Change* (New York: Elsevier, 1993); and E. Isuani, *El estado benefactor. Un paradigma en crisis* (Buenos Aries, Argentina: Miño y Davila, 1991).

be able to connect themselves with other groups around the world, which implies faster and easier communications and economic transactions. This situation will affect the dominant and non-dominant groups in each nation.[14]

In specific terms, globalization theory implies a key element concerning integration: integration regarding international trade, the international financial system, technology and communications, and cultural values among the more developed countries.[15] Economic integration at the systemic level - among countries - means stronger worldwide relationships. At the subsystemic level - within individual countries - it implies social and economic integration among the different social sectors.[16] At the systemic level, some nations are able to achieve more integration into the new world economic conditions than others. At the subsystemic level, some social sectors integrate themselves into the new economic dynamic derived especially from economic growth, and some sectors become marginalized in social terms.[17]

Lubbers claims that even though the term globalization has been utilized in recent years, especially following the technological revolution in communications[18] and the creation of cyberspace, the first major argument on "Globalization of the Markets" can be found in

---

[14] See D. Baker, et al., *Globalization and Progressive Economic Policy* (Cambridge: Cambridge University Press, 1998), pp. 367-69, 278-83; and additional material in M. Moore, *Globalization and Social Change* (New York: Elsevier, 1993).

[15] R. Lubbers, *Globalization, Economists and the Real World* (London: Tillburgh, 1999).

[16] O. Sunkel, Contemporary economic reform in historical perspective?. In *Pensamiento Iberoamericano Revista de Economia Politica Jul-Dic. 1992* (Madrid, España REP, 1992).

[17] O. Sunkel, Contemporary economic reform in historical perspective?. In *Pensamiento Iberoamericano Revista de Economia Politica Jul-Dic. 1992* (Madrid, España REP, 1992).

[18] For more on this issue, see R. Lubbers, *Globalization, Economists and the Real World*. (London: Tillburgh, 1999); R. R. *Concepts on Globalization*. (www.globalize.org/publications/dynamic.html); and R. Blecker, *Taming Global Finance* (London: Economic Policy Institute, 1999).

a 1983 article by Theodore Levitt in the *Harvard Business Review*.[19] The functionalist aspect of the globalization concept is what distinguishes it from the mere notion of internationalization, which refers to a quantitative process but not necessarily to an epochal shift of a more qualitative kind.

According to Peter Dickens, globalization processes are qualitatively different from internationalization processes. They involve not merely the geographical extension of economic activity across national boundaries, which is internationalization, but also and more importantly, the functional integration of such internationally dispersed activities. The current process of globalization produces a new global-functional unity.[20]

The above considerations are fundamental in framing two research questions: One, to what extent have Latin American nations been able to integrate themselves into the new economic conditions? Two, to what extent have exports - as the main link in integration into the international market - been the main cause of economic growth for Latin American countries?

Following the basis set out by Portes and Held,[21] the theory of globalization coincides with some elements of the theory of modernization. Both theories state that the main direction of development should follow that of the United States and Europe. Both schools hold that the main patterns of communication and the tools to improve standards of living originated in those more developed areas. The modernization perspective differs from the

---

[19] See T. Levitt, *The Marketing Imagination* (New York: The Free Press, 1986).

[20] See P. Dickens, *The Global Shift* (New York: Guilford, 1998); and J. Foster, Contradictions in the universalization of capitalism, *Monthly Review* 50, no. 11 (April 1999): 39.

[21] See A. Portes, *Labor, Class, and the International System* (New York: Aberdeen, 1992; and D. Held, *Modelos de democracia* (Madrid, España: Alianza Editorial, 1992).

globalization approach in that the former follows a more normative position, stating how the development issue should be solved. The latter is characterized as having a "positive" perspective rather than a normative one.[22]

Globalization theories emphasize cultural and economic factors as the main determinants which affect the social and political conditions of nations. This is similar to Max Weber's "comprehensive social school" theory.[23] From this perspective, the systems of values, beliefs, and the pattern of identity of both dominant and subordinate groups within a society are important elements to explain national characteristics in economic and social terms.[24] For the globalization position, this statement from the Weberian theory of the 1920s must apply to current world conditions, especially in terms of the diffusion and transference of cultural values through communication systems that are increasingly affecting many social groups in all nations.

Based on these elements, it is clear that the globalization and world-systems theories take a global perspective as the unit of analysis, rather than focusing strictly on the nation-state, as was the case in the modernization and dependency schools. The contrasting point between world-systems theory and globalization is that the first contains certain neo-Marxist elements, while the second bases its theoretical foundations on the structural and functionalist sociological movement. Therefore, the globalization approach tends toward a gradual transition rather than a violent or revolutionary transformation. For globalist authors,

[22] See especially A. Portes, *Labor, Class, and the International System* (New York: Aberdeen, 1992); and D. Held, *Modelos de democracia* (Madrid, España: Alianza Editorial, 1992).

[23] See M. Weber, *Economía y sociedad* (México, D.F., México: Fondo de Cultura Económica, 1987), especially pp. 8-16 and 23-54.

[24] See a classical text on these issues in M. Weber, *The Protestant Ethic and the Spirit of Capitalism* (New York: Scribner, 1988).

gradual changes in societies become a reality when different social groups adapt themselves to those innovations, particularly in cultural communication and the economic sphere. [25]

The globalization and world-systems theories take into account the most recent economic changes in world structure and relations that have occurred in the last two decades, for example: a) in March 1973, the governments of the developed nations began to use more flexible mechanisms in terms of exchange rate control. This allowed for the faster movement of capital among the world's financial centers, international banks, and stock markets; b) especially since 1976, trade transactions have based their speculations on the future value of the products, which is reinforced through the flexible use of modern technology in information, computers, and communication systems; c) the computer revolution of the nineteen-eighties made it possible to carry out faster calculations and transactions involving exchange rates, values and investments, which was reinforced by the general use of the fax machine; and d) during the nineties, the main feature was the Internet system which allows even more rapid and expansive communication. The Internet is increasingly creating conditions to reinvigorate the character of the "virtual economy" in several specific markets.

Under current conditions, the main factors to study from the perspective of globalization are: a) new concepts, definitions and empirical evidence for hypotheses concerning cultural variables and their change at the national, regional and global levels; b) specific ways to adapt the principles of "comprehensive sociology" to the current "global village" atmosphere; c) interaction among the different levels of power from nation to nation

---

[25] See concepts and examples of relationships between cultural aspects and communication in E. Etzioni. *Social Change* (New York: Basic Books, 1991); J. Galbraith, *La cultura de la satisfacción* (Buenos Aires: Ariel, 1992); and A. Hirschman, *De la economía a la política y más allá.* (Mexico: Fondo de Cultura Economica, 1987).

and from particular social systems which are operating around the world; d) how new patterns of communication are affecting minorities within each society; e) the concept of autonomy of state in the face of increasingly flexible communication tools and international economic ties, which render obsolete the previous unilateral effectiveness of national economic decisions; and f) how regional and multilateral agreements are affecting global economic and social integration.

2.2. Globalization Theory, Network Analysis Models, and Economics of Development: A General Perspective

According to the literature, the aim of globalization theory includes the interpretation of current events in the international sphere. These events are characterized by (a) increasing worldwide active communication systems, and (b) increasingly fluid economic conditions, especially those circumstances and factors regarding mobility of financial resources and trade. Throughout the process of globalization, the assumption is that more nations are dependent on worldwide conditions in terms of communication, the international financial system, and trade. Therefore the world scenario is increasingly integrated in international economic transactions.[26] This study takes into account circumstances, units of analysis and their relationships in terms of the international economic environment and specific conditions within countries. At the external or systemic level, the unit of analysis is countries; at the domestic, internal or sub-systemic level, the units of analysis are those corresponding to national variables of economic growth.

---

[26] O. Sunkel, Contemporary economic reform in historical perspective?. In *Pensamiento Iberoamericano Revista de Economia Politica Jul-Dic. 1992* (Madrid, España REP, 1992).

In terms of the globalization process that is taking place under current worldwide economic conditions, there are two main topics in international political economy: (a) the structure of the international economic system, and (b) how this structure has changed.[27] These can be addressed through the application of the theory of globalization from the development perspective. This globalization approach suggests that the structure of the global system, and the roles that countries play within the international division of trade and labor, are crucial to understanding a wide array of social, political, and economic changes within particular countries. The basic claim is that international connections, roles, and relationships are important variables in any analysis which tries to explain the varied dimensions of development (economic growth, for example) and trade among countries.[28]

Smith and White support the concept that network analysis models are powerful tools for formally describing and testing theories of complex interactive systems. For example, the five empirical components addressed by the various theories of international economic systems are: (a) the constituent economies of states (or cities, and regions) that produce, distribute, consume and exchange exports and imports; (b) links or directed flows between these economies at the country level, and international policies that regulate or deregulate these flows; (c) the political-economic networks formed by these links or flows; (d) the

---

[27] A new economic world order has emerged reaching an advanced stage of globalization: just 600 multinational corporations in 1990 had sales greater than 1 billion US$. They were responsible for 20 percent of the total worldwide industrial value added. See M. Mortimore, "A new international industrial order: increased international competition in a centric world", *CEPAL Review* 48 (August 1992). (Santiago de Chile, Chile: CEPAL).

[28] For the general advantages of this structural approach, see D. Smith and D. White, "Structure and dynamics of the global economy," *Social Forces* 70, no. 4 (June 1992): 857-93; and C. Tilly, *Big Structures, Large Processes, Huge Comparisons* (New York: Russell Sage, 1989).

positions occupied by constituent economies in these networks; and (e) the structure of these networks as patterns of flows between positions.[29]

Network analysis of the international economic system is uniquely equipped to map each of the last configurations. If performed at multiple time-points, network analysis enables researchers to examine change in each of these components as well. Conceivably, it could lead to empirical tests of alternative theoretical models of the global system.[30]

The network analysis model can also be a means for identifying empirical data using the concepts of different scenarios and actors within their dynamic pattern of relationships. For example, Ronald Burt, in his studies concerning "structural holes,"[31] has analyzed the relationships that are derived from centralization as a characteristic of the system which is affecting each one of the actors' positions. In Burt's studies we can see the potential for the application of network analysis models to enterprises working in the international market in terms of the actual globalization process.

Studies of social institutions within local areas can be found in the work of Roberto de Leon, particularly in his book, *The Left Coast City*.[32] In this work, de Leon applies multiple regression models to the study of social and political groups in San Francisco, California, from 1989 to 1993.

---

[29] D. Smith and D. White, "Structure and dynamics of the global economy," *Social Forces* 70, no. 4 (June 1992): 857-93.

[30] D. Smith and D. White, "Structure and dynamics of the global economy," *Social Forces* 70, no. 4 (June 1992): 857-93.

[31] The structural holes concept can allow a specific actor to enter or place itself in a more powerful position by establishing contacts or relationships with the more powerful actors, that is with the actors with more centrality in the network system. See R. Burt, *Structural Holes: The Social Structure of Competition* (Stanford, CA: Stanford University Press, 1990).

[32] See Roberto de Leon, *The Left Coast City* (San Francisco: McMillan, 1994).

Related to a theoretical level and in reference to institutions and particular conditions of political power within more developed countries, we have Anthony Giddens's book, *Consequences of Modernity*.[33] In this work, Giddens studied the processes of economic and social transformations derived from globalization in more developed cities. His main argument is that we are presently experiencing an "extreme modernization" instead of a "post-modernism" stage in world relations, particularly with regard to institutions of international trade.

Network analysis models are particularly appropriate in testing aspects of globalization that stress the importance of the global economic exchange in terms of exports and imports. Wallerstein, Frank and others have attempted to provide sophisticated historical descriptions of the origin, operation, and organization of the modern global economy.[34] Unlike early concepts of dependency[35] that underline the particular two-way relationships between core and peripheral countries, the globalization and world system approaches stress the importance of capturing the unity and structure of a hierarchic, differentiated world economic system. Here the major references are trade, financial, technological, and communication links operating at a world level.[36]

The most important areas of dispute concerning globalization theory and network analysis models are related to four main issues: (a) The fact that countries can have more

---

[33] A. Giddens, *The Consequences of Modernity* (Stanford, CA: Stanford University Press, 1990), pp. 23-45, 56-67.

[34] See I. Wallerstein, *World-System Analysis* (Stanford, CA: Stanford University Press, 1987); and G. Frank, *Latin America: Underdevelopment and Revolution* (New York: Monthly Review Press, 1969).

[35] G. Frank, *Latin America: Underdevelopment and Revolution* (New York: Monthly Review Press, 1969).

[36] D. Smith and D. White, "Structure and dynamics of the global economy," *Social Forces* 70, no. 4 (June 1992): 857-93.

than three levels of placement: core, semiperiphery, and periphery;[37] (b) The positional

characteristics of several countries in terms of sharing the same patterns of relationships can

be related to the "clique" characteristics from the network analysis models; (c) Even inside

the same position in the network analysis model, e.g., the peripheral position, the features of

countries can be greatly varied in terms of the size of their economies, internal effective

demand, export structure, and level of historical and/or current economic growth;[38] and (d)

There is strong evidence that the patterns of economic concentration among nations,

especially in the fields of international trade and financial systems, are related to the

dependent development patterns claimed by the neostructuralist authors.[39]

Concerning the relationship between exports and economic growth, one of the

important positions is the neoliberal one.[40] According to this, promotion of exports, through

several macroeconomic measures including devaluation or depreciation of currencies, was

necessary in order to achieve better standards of economic growth following the "outside

approach,"[41] especially for economies of developing countries which were facing an external

debt problem. Complementary to this promotion of exports and the aim of increasing

---

[37] See T. Schott, *Structure, Reference Manual* (New York: Columbia University Press, 1993).

[38] See D. Smith and D. White, "Structure and dynamics of the global economy," *Social Forces* 70, no. 4 (June 1992): 857-93.

[39] See E. Cardoso and A. Helwege, *Latin America's Economy* (Cambridge: MIT Press, 1992).

[40] It is important to consider that economic growth and employment are two of the four main problems that macroeconomics deals with. The other two are: stability of prices (control on inflationary processes) and a favorable balance of payments. See J. Jackson, *The World Trading System* (Cambridge, MA.: MIT Press, 1994), pp. 12-19.

[41] Outward or export development strategies consist of government support for manufacturing sectors in which a country has potential comparative advantage. See S. Husted and M. Melvin, *International Economics* (New York: Harper Collins, 1995), p. 260; and World Bank. *World Development Report 1993* (Baltimore: The Johns Hopkins University Press, 1995).

economic production, it was necessary for countries to undertake fiscal policies to control

government deficit, and to keep inflation in check.

Devaluation or depreciation of currencies to promote exports to a more competitive

level resulted in the impoverishment of middle class sectors and worsening social indicators

for those social classes already living below the poverty level.[42] This set of macroeconomic

measures reduced internal effective demand, preventing this internal market from being a

dynamic force in the encouragement of economic growth.[43] Nevertheless, the World Bank

and the International Monetary Fund expect that the positive effects from economic growth,

more competitive standards of exports, and higher levels of investment will also be beneficial

to the lower classes within the next 5-7 years.[44]

---

[42] Devaluation of currencies was a fundamental part of the economic adjustment plans. Other economic measures were reduction of governmental deficits, reductions in the rate of taxes (especially direct taxes), restrictions on the growth of the money supply, effective utilization of scarce government sector resources in areas where public sector involvement was judged necessary, and lowering effective protection on import substitutes. See A. Guerra-Borges, *Hechos, experiencias, y opciones de la integración centroamericana* (San Jose, Costa Rica: Facultad Latinoamericana de Ciencias Sociales [FLACSO\, 1993), pp. 46-53; and F. Cardoso and E. Falleto, *Dependency and Development in Latin America* (Berkeley: University of California Press, 1979).

[43] In this regard it is also important to realize that when a depreciation or devaluation of a currency occurs, the trend is that a specific nation will improve its trade balance conditions. It is important to keep in mind the effects of the J curve. The J curve explains why a nation's trade balance will first deteriorate before it improves following a depreciation. The basic explanation for the J curve is that price elasticities become larger over time, that is to say, a depreciation will work, but only after a lapse of some 1.5 to 2 years. See T. Walther. *The World Economy* (New York: John Wiley & Sons, 1997), especially Chapters 3 and 5; and T. Dos Santos, *The Structure of Dependence* (Boston: Extending Horizons, 1971).

[44] Some of the basic concepts concerning operations with the International Monetary Fund (IMF) are useful to keep in mind in studying the economic adjustment plans carried out in Latin American nations. A **country's subscription** is the amount of money it pays into the International Monetary Fund when it joins the organization. Based on its subscription, a country is granted a quota which defines how much money it can borrow from the IMF. The **general arrangement to borrow** is a line of credit provided to the IMF by its major members. The **gold tranche** is the proportion of a member's line of credit at the IMF that can be automatically borrowed. It equals 25 percent of the country's subscription to the IMF. The remaining portions of a country's line of credit, called **credit tranches**, are more difficult to obtain. Normally, if a country wants to borrow more than 50 percent of its drawing rights, the **letter of intent**, describing the policies it plans to follow to overcome difficulties, will lead to its request for funds. See T. Walther. *The World Economy* (New York: John Wiley & Sons, 1997), especially Chapters 4 and 7; and World Bank, *World Development Report 1993* (Baltimore: The Johns Hopkins University Press, 1995).

Khan, Mohsin, Villanueva and Delano have studied the relationship between export

oriented policies and economic growth in 23 developing countries. Their study, which

focused on the period 1975 to 1987, found that the rate of growth of per capita income was

significantly higher and had a positive effect from (a) the export component in national

economies, and (b) the national investment rate - the formation of fixed capital. These

authors also concluded that monetary expansion within macroeconomic systems has a

negative impact on economic growth.[45]

These conclusions are not universally accepted. In a study concerning economic

growth and exports, Helliner considered underdeveloped countries mainly from the sub-

Saharan region of Africa, during the period 1960-1980. He was not able to find any

significant statistical relationship between changes in exports and economic growth. If

anything, the relationship was negative.[46] However, in this case we need to evaluate whether

the countries of Sub-Saharan Africa were really implementing an export oriented policy

---

[45] See B. Khan, T. Mohsin, J. Villanueva, and K. Delano, "Macroeconomic policies and long-term growth: A conceptual and empirical review," *IMF Working paper, International Monetary Fund, March, 1991*. These authors offered the following equation as part of their conclusions:

$$
\begin{array}{lllllll}
g & = & -1.95 + & 0.284\,RX & + & 0.166\,IP & - & 0.0042\,RM2 \\
 & & (-0.886) & (0.073) & & (0.069) & & (0.002) \\
t & = & 2.2 & 3.9 & & 2.4 & & 2.2
\end{array}
$$

R square = 0.71

Where g = rate of economic growth (GNP/per capita); RX = rate or export real growth; IP = private investment as percent of GNP; and RM2 rate of growth of M2 (as monetary indicator). See also O. Antesana, *La magia de las exportaciones* (La Paz, Bolivia: Centro de Investigaciones para el Desarrollo, 1993), pp. 44-46, 75-80, 92-94.

[46] See G. Helliner, Outward orientation, import instability and African economic growth: An empirical investigation, in *Theory and Reality in Development*. ed. S. Lall and F. Stewart (London: McMillan, 1984). See also, O. Antesana, *La magia de las exportaciones* (La Paz: Centro de Investigaciones para el Desarrollo, 1993), p. 78.

during this period, whether they were restructuring their agricultural export pattern, and whether they were able to compensate for the two oil price shocks of 1973 and 1979.

Michaely claims that the positive relationship between economic growth and exports expansion within the GNP is strong in countries with a high degree of economic and social development, and is less significant, almost nonexistent, in poor countries.[47] In the more developed countries we have better market conditions which include more production in terms of added value,[48] more expansion in internal or domestic demand, and a greater institutional efficiency framework.[49]

Regarding the social effectiveness of Latin American governments, the World Bank and the Inter-American Development Bank propose to carry out economic adjustment agendas. They expect that a natural consequence of economic growth will be more opportunities and better standards of living for each nation's population. During the nineties, however, international organizations tried to implement specific programs that focused on the most marginal social groups. The Economic Commission for Latin America and the Caribbean (ECLAC) presented a set of considerations and policy measures which took into account the structural economic problems of the region, with the purpose of implementing a social policy that included economic growth and equity.

---

[47] By widening the size of the domestic market, international trade permits larger production runs, which can lead to increasing efficiencies for domestic producers. Such economies of large-scale production can be translated into lower product prices, which improve a business's competitive position. See P. Krugman, *Rethinking International Trade* (Cambridge, MA: MIT Press, 1990), pp. 45-63.

[48] Following the arguments from Krugman, "added value" has a precise, standard meaning in national income accounting: the value added of a firm is the monetary value of its sales, minus the monetary value of the inputs it purchases from other firms, and as such it is easily measured. Some people who use the term, however, may be unaware of this definition and simply use "high value-added" as a synonym for "desirable." See P. Krugman, *Pop Internationalism* (Cambridge, MA: MIT Press, 1997).

[49] See M. Michaely, "Exports and growth an empirical investigation", *Journal of Development Economics* 4, no. 1 (1992): 149-53.

2.3. Summary of Theoretical Framework

In this research, integral and global data are examined in order to identify the changes and major features of the transformation of trade relations both among Latin American countries and with their principal partners. The main purpose is to explore the propositions of the globalization theory. In summary, the theoretical framework contains three major principles:

First, by testing the globalization theory, this study examines the development process that Latin American nations have experienced in their trade relations, economic growth, and social conditions during the period 1960-1995. Using network analysis, it focuses on the processes of trade and economic transitions, taking into consideration the structure of the nations' exports and their position - core, semiperiphery, or periphery. Therefore, through network analysis, this study aims to establish the levels of integration of Latin American nations into the international trade system (first stage of the methodology). By studying economic growth (second stage of the methodology), the study determines the impact of international trade on national production levels within Latin American nations.

Second, the assumption is that globalization processes are taking effect and are having significant impact on the nation-state level. From this perspective, the study considers that export oriented policies indeed have been the major factors in increasing economic growth. This economic performance is a vital indicator in establishing to what extent a particular nation has been able to adapt itself to dynamic international economic

conditions. This study acknowledges, nevertheless, that the nation-state unit of analysis can

be affected by changes in the international political scenario.[50]

Third, the nation-state is the unit of analysis in terms of macroeconomic variables.

These characteristics are related to the international adaptability of each nation, since a)

internal conditions are key elements in attracting investment; and b) internal social stability

is a main factor in establishing permanent social support for macroeconomic measures.

Stability and social circumstances are indicators of "mass retributions" and signs of internal

governmental effectiveness.[51]

---

[50] One specific example of this situation is the increase in oil prices. During the seventies there were two main increases 1973-1974 and 1979-80. These events had significant repercussions on external debt levels, especially for those Latin American nations which did not have oil reserves and production: Central American countries, the Caribbean nations, Colombia, Paraguay, Uruguay, Brazil, Argentina, and Chile. See International Monetary Fund, *International Financial Statistics 1994* (New York: Harper Collins, 1995); G. Helliner, Outward orientation, import instability and African economic growth: An empirical investigation, in Theory and Reality in Development, ed. S. Lall and F. Stewart (London: McMillan, 1984); O. Antesana, *La magia de las exportaciones* (La Paz: Centro de Investigaciones para el Desarrollo, 1993); and J. Jackson, *The World Trading System* (Cambridge, MA: MIT Press, 1994).

[51] "Mass retributions" and "mass loyalty" are utilized by J. Habermas in at least three of his principal books: *TheTtransformation of the Public Sphere* (Boston: Wadsworth, 1993); *Crisis of Legitimacy* (New York: Harper Collins, 1991); and *Theory of Social Action*. (London: MacMillan, 1992).

Chapter 3

RESEARCH DESIGN

3.1. Research Problem

General: Under one of the main assumptions of globlatization, increased integration, is it possible to claim that Latin American economies became more integrated within the international economic scenario in terms of international trade from 1960-1995?

Particular: What were the main repercussions of Latin American exports on the economic growth of Latin American countries, during the period 1960-1995?

The external sector has played an important role in Latin American economies. During the 18th and 19th centuries the export of natural resources was crucial to the development of the economic structures of these nations. Industrial production began at the end of 19th century and one of the main obstacles to its development was the reduced size of the domestic demand within Latin American countries. After the Second World War, a serious effort to promote industrialization in this region was carried out through the process of import substitutions and following a strategy based on "inward policies."

During the sixties and early seventies, Latin American nations developed important industrial infrastructures, stable trade links with other countries, and processes for developing domestic demand. Those were years of fairly stable conditions in the

27

international economic environment, based on the Bretton Woods institutions and the gold-dollar international monetary standard, mainly using fixed exchange rates.[52] The process of liberalizing movements of international financial capital began in 1973. This year also saw the first of two shocking increases in the price of oil (1973, 1979-1980). Especially after 1975, Latin American nations increased their external debt and were forced to carry out economic adjustment reforms.[53]

During the period 1960-1973, the general model of economic development was, to some extent, still based on a consideration of internal or domestic demand - "inward development strategy" - especially in some of the small economies such as Central American countries, Paraguay, Ecuador, and the Dominican Republic. After 1974, and especially after 1982, the general economic policy was based on export oriented measures. Through this kind of political economic strategy, the region as a whole has experienced economic growth. However, problems of inflation, unemployment, unresolved social issues, and balance of trade still need to be solved, even in nations with important oil resources such as Mexico, Venezuela, Trinidad and Tobago, and Ecuador.[54]

---

[52] During this period the international which institutions originated from the Bretton Woods Accord had a more important role, especially the International Monetary Fund (IMF), the General Agreement on Tariffs and Trade (GATT) and the World Bank (WB). These institutions were created to ease the problems of disequilibrium in the balance of payments, to facilitate payment adjustments, to establish a general worldwide "frame" for international trade transactions - at least a forum of discussion - and to facilitate development efforts for (a) destroyed countries after the Second World War, and (b) underdeveloped nations. See D. Blake and R. Walters, *The Politics of Global Economic Relations* (Englewood Cliffs, NJ: Prentice-Hall, 1976), pp.46-53, 67-72; and T. Killick, *Adjustment and Financing in the Developing World* (Washington, DC: International Monetary Fund, 1982), pp. 73-81,128-30, 198-206.

[53] See E. Cardoso and A. Helwege, *Latin America's economy* (Cambridge, MA: MIT Press, 1992), pp. 57-61, 64-67, 74-83; T. Skidmore and P. Smith, *Modern Latin America* (New York: Oxford University Press, 1992), pp.53-55, 56-62; and P. Dostert, *Latin America 1996* (Harpers Ferry, WV: Stryker-Post Publications, 1997), pp. 2-4, 16-20.

[54] See E. Cardoso and A. Helwege, *Latin America's Economy* (Cambridge, MA: MIT Press, 1992), pp. 139-43, chapter 6 about inflation, and chapter 7 about stabilization.

3.1.1. Hypotheses

3.1.1.1. General

- As exports from Latin American countries increased during the period 1960-1995, these nations were forming a trading block with the United States.

- Exports from Latin American countries during the period 1960-1995 have been the main reason for the economic growth of these nations.

3.1.1.2. Particular for each methodological stage

a. **First methodological stage**: Network analysis models in order to determine how Latin American countries might have changed their position from periphery to semiperiphery. Therefore the major hypotheses are:

a.1. Regarding trade among Latin American nations:

a.1.1. **Null hypothesis**: Latin American countries were not more integrated among themselves in terms of trade in 1995, than they were in 1960;

a.1.2. **Research hypothesis**: Latin American countries changed their situation in terms of integration among themselves from 1960 to 1995.

a.2. Regarding trade between Latin American countries and their main international partners:

a.2.1. **Null hypothesis**: Latin American countries were not more integrated into the international trade systems in 1995 than they were in 1960, therefore their positions - peripheral or semiperipheral - have not changed.

a.2.2. **Research hypothesis**: Latin American countries have changed their situation in terms of integration in the international trade system, and therefore they have changed positions - peripheral or semiperipheral. Specifically, Latin

American nations are becoming: (a) more integrated into the international trade system (confirming a feature of the theory of globalization), or (b) less integrated into the international trade system (confirming the phenomenon of segregation);

b. <u>Second methodological stage</u>: Relationship between integration of Latin American nations into the international trade system and economic growth. In this part, this study determines if the export variable has been the main factor behind economic growth for Latin American countries during the period 1960 to 1995. This is the aspect of increased integration into the international trade system and its repercussion on improving levels of gross national product for Latin American countries.

b.1. <u>Null hypothesis</u>: Exports from Latin American countries were not the main driving force behind the economic growth levels in the region during the period 1960-1995;

b.2. <u>Research hypothesis</u>: Exports from Latin American countries were the driving force behind the economic growth levels in the area from 1960 to 1995.

3.1.1.3. Particular / complementary

a. As exports from Latin American countries increased during the period 1960-1995, Mexico, Central American nations and Caribbean countries were forming a trading block with the United States;

b. As exports from Latin American nations increased during the period 1960-1995, Andean countries (Venezuela, Colombia, Ecuador, Peru, and Bolivia) and Southern Cone countries (Chile, Argentina, Brazil, Paraguay and

Uruguay) were forming a trading block with the countries of the European

Union;

c.   As exports from Latin American countries increased during the period 1960-

1995, the oil-exporting nations of this region - Mexico, Venezuela, Ecuador,

and Trinidad and Tobago - were experiencing economic growth.

3.1.2. Significance of Research

During the nineties, the international economic scene was dominated by the evident

trend toward globalization. At the same time, and especially in terms of worldwide financial

and trade systems, it was conventionally accepted that a pattern of integration existed among

countries, basically Western Europe with the Eastern European nations, Japan with the

Southeast Asian nations, and the United States with Latin American states. Latin America -

especially Mexico, Brazil and Argentina - appears more integrated with the United States and

Europe. However, it is important to determine what changes have occurred in the

international trade relations with Latin American countries, taking this region in its entirety,

rather than by studying isolated cases.

In the area of international relations, the globalization theory can be useful in

explaining several connotations, trends and relationships among economic and social

variables. One of the fundamental concepts of globalization is that under current conditions,

especially conditions caused by technology, communications and the economic factors of

production, distribution and consumption are having an accelerated movement across

national and regional barriers.[55] Based on this concept, globalization studies have focused on two main areas: (a) communications; and (b) economic and social factors, such as worldwide technological diffusion, the international trade system and the international financial sphere.[56]

This study takes into consideration economic variables, in particular those of the international trade links of Latin American countries and their main trading partners, especially the United States and Canada, Western Europe, and Japan.[57] This study also addresses the impact of exports on the economic growth of Latin American nations during the period under study.

During the eighties, most Latin American countries carried out economic adjustment measures. These economic measures were an attempt to achieve economic growth through export oriented policies while at the same time attempting to solve their problems by means of international debt. Especially during the eighties, the region as a whole endured a

---

[55] For a discussion concerning globalization concepts and regionalization, see M. Svetlicic and H. Singer, *The World Economy: Challenges of Globalization and Regionalization*. (New York: St Martin's Press, 1996), pp.140-41, 145-50. For studies concerning the impact of globalization on Third World countries, see P. Maitra, *The Globalization of Capitalism in Third World Countries* (Wesport, CT: Praeger, 1996), pp. 33-40, 85-94, 177-89, 223-27.

[56] In the post-World War II era, the dynamics of international trade hve had a more dramatic change than the total world gross national product (GNP). During the period 1950-1990, international trade grew 11-fold, while the total world GNP grew 5-fold. See, General Agreement on Tariffs and Trade (GATT), *GATT Annual Report 1993* (Washington, DC: The Johns Hopkins University Press, 1994).

[57] The world is simultaneously being reorganized around three main blocks led by the United States, Japan and the European Union. This new triad of economic power accounts for 65 percent of the world's GNP, 82 percent of the outward stocks of foreign direct investment and 48 percent of the world trade. See O. Sunkel, "Contemporary economic reform in historical perspective", in *Pensamiento Iberoamericano Revista de Economia Politica Jul-Dic. 1992* (Madrid, España: REP, 1992).

significant social crisis as the devaluation or depreciation of national currencies and high levels of inflation besieged many nations.[58]

The period 1982-1990 was characterized by the impact of the problem of external debt generated by Latin American countries during the eighties. Inflationary processes, devaluation of currencies and significant erosion of social indicators took place. Since the end of that decade, however, several countries in the region have experienced important macroeconomic recovery.

Especially during the period 1974-1995, this study will determine whether Latin America as a region had a higher degree of integration in the international economy at that time and to what extent the export policies had a positive impact on economic recovery and social indicators.[59] In this regard it is possible to predict that the more developed economies of Latin America, particularly Mexico, Brazil, and Argentina, affected a broader integration with the international economy, than did the smaller economies of the region such as those

---

[58] This situation affected income distribution within nations. The problem of trade and income distribution affecting social and economic indicators is not new at all. This problem was one of the reasons that motivated two Swedish economists to develop the Heckscher-Ohlin theory which deals with concepts of production and factor endowments in particular nations. The Hecksher-Ohlin theory focuses on the two most important factors of production, labor and capital. Some countries are relatively well-endowed with capital; the typical worker has plenty of machinery and equipment at his disposal. In such countries, wage rates generally are high. Products requiring much labor, such as textiles, sporting goods, and simple consumer electronics, tend as a result to be more expensive than in countries with plentiful labor and low wage rates. On the other hand, goods requiring much capital and only a little labor (i.e., automobiles and chemicals), tend to be relatively inexpensive in countries with plentiful and cheap capital. Thus, countries with abundant capital should generally be able to produce capital-intense goods relatively inexpensively, exporting them in order to pay for imports of labor-intensive goods. See E. HecksherE. and B. Ohlin, *Interregional and International Trade* (Boston: Harvard University Press, 1933).

[59] It will be important here to test the effectiveness of economic adjustment plans in Latin American countries in terms of economic growth, especially from 1980 to 1995. As the Nobel prize-wining economist, Milton Friedman, has argued: A test of a theory or economic measure is not exactly to question the plausibility of the assumptions employed but rather to compare the predictions of the theory or measure with experience. In any case, theories can be rejected if their predictions are frequently contradicted, or if they are correct less often than the predictions of alternative theories. See M. Friedman, "The methodology of positive economics," in *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953), pp. 3-43.

of Haiti, Central American countries, Bolivia, Paraguay, Uruguay, Ecuador, Guyana, and Trinidad and Tobago.[60]

In summary, the major points regarding the significance of this research are as follows:

- The study of international economic links based on international trade relations of Latin American countries (1960-1995) focusing on changes over time. This is the core element in the first part of the research problem: What significant changes have occurred in the trade relations of Latin American countries with their main worldwide trade partners - principally the United States, Western Europe, and Japan - during the period 1960-1995?

- Consideration of the international trade variable as a principal factor of economic growth, macroeconomic adjustment and social consequences for Latin American countries. This is the main element in the second part of the research problem: What were the repercussions of export growth on social conditions of Latin American countries during the period 1960-1995? From this perspective we can evaluate and interpret the impact and interrelations of macroeconomics, international trade and export structure over a significant period of time.

---

[60] In this sense of size of economies, the fact that imports and exports have more influence on the GNP of a particular country is related to the characteristic of the openness of a particular nation. Small economies with very dynamic economic sectors, and with high GNP tend to have higher degrees of openness, for example Singapore with an index of 191 and Hong Kong with 135 for 1990. This index is obtained by dividing the monetary value of (imports + exports) over the monetary expression of the gross national product of a particular nation, in reference to a particular year. Therefore this index shows the importance of the external sector in the formation of the total production of a given country. In more developed countries, the impact of exports and imports on GNPs has significant importance. The average values of the openness index for 1990, concerning different types of economies were: Low income economies (19); middle income countries (31); and high income nations (45). See World Bank, *World Development Report 1990* (New York: Oxford University Press, 1991), pp.25-43.

- The utilization of a network analysis model as a tool to determine changes of actors (in this case countries) and relationships (international trade links) over time.

- Interpretation and identification of concepts from the economic globalization perspective, which in turn can be applied to other areas of social and economic research.

3.1.3. Context of the Research Problem

The external sector has always played an important role in Latin American economies as a factor in carrying out the industrialization process. Especially since the eighties, external relations have actively been designed to achieve economic growth and a better place in the international trade and financial system. The economic adjustment process has been implemented as a tool to improve the macroeconomic performance of Latin American countries. Under current conditions, several critiques have been put forth by different authors and institutions concerning the specific way in which economic adjustment programs have been applied in these nations. The bases for these criticisms are as follows:

a. The economic growth that Third World countries were seeking through export efforts failed in many cases because frequently these countries were exporting raw materials and agricultural products which had increasingly lower prices in international economic market.[61] These lower prices were mainly a consequence of the following:

---

[61] The terms of trade for oil-exporting and non-oil-exporting developing countries have behaved very differently over the period 1963 to 1990. Oil exporters have seen two sharp increases in their terms of trade,

a.1.   Agricultural products, which are the main exports of most Latin American nations, have a low value-added component [62] in economic terms; [63]

a.2.   The fact that several agricultural products and raw materials have already been, to some extent, produced by the more developed countries removes the possibility for both higher demand and higher prices in the international market, e.g., sugar production substitution by biotechnological products, and the replacement of steel auto components by plastic components due to the need for lighter weight and higher fuel-yielding materials;

a.3.   In some cases, the more developed countries produce their own agricultural materials or food and therefore give a lower priority to imports from the Third Word, e.g., the countries of the European Union receive banana imports from within the EU, mainly from the Canary Islands and Greece, and it has, therefore, imposed higher tariffs on bananas from Latin America.

---

coinciding with the two large increases in petroleum prices engineered by the Organization of Petroleum Exporting Countries (OPEC) in 1973 and 1979. Since the early 1980s, oil prices have fallen sharply and so, too, have the terms of trade of the oil exporters. The terms of trade of the non-oil exporters have shown much less fluctuation. There were two significant down-turns, coinciding with the OPEC oil-price increases. Otherwise, the terms of trade appear to have been quite stable, with a slight downward trend over time. A statistical analysis of data suggests an average annual decline of 0.875 percent in the terms of trade of non-oil exporting developing countries over the period from 1963 to 1990. See International Monetary Fund, *International Financial Statistics Yearbook 1991* (Baltimore: The John Hopkins University Press, 1992), pp. 34-56.

[62] The value-added component - the total price of a good or service less the cost of input materials to produce it - in international trade is, as expected, mostly related to the exports of the more developed nations. Preliminary figures for 1994 suggest that Germany has become the world's largest merchandise exporter, with 12.1 percent of world exports versus 11.4 percent for the United States. See S. Husted and M. Melvin, *International Economics* (New York: Harper Collins, 1995), p.10.

[63] Terms of trade measures the relationship between the prices a nation gets for its exports and the prices it pays for its imports. This is calculated by dividing a nation's export price index by its import price index, multiplied by 100 to express the terms of trade in percentages:

Terms of trade = (Export price index/Import price index) x 100

See R. Carbaugh, *International Economics*. (Belmont, CA: Wadsworth, 1992), p. 57.

These tariffs still remain even though they violate World Trade Organization agreements. Since 1992, Latin American banana exporters, such as Ecuador, Costa Rica, Honduras, and Panama, have received the lowest prices for bananas since 1930.[64]

b. There are other, more structural reasons for the effect the international economy has had on lowering the price of agricultural products, which are related to the following circumstances:

b.1.   Agricultural products have low elasticity of demand in the market;

b.2.   Agricultural products have high elasticity of supply from a number of different producer nations;

b.3.   Delivery of agricultural crops is unpredictable, since their production depends mainly on weather conditions wherever they are grown, and because they are highly perishable.

Many of those who criticize the application of the neoliberal adjustment model have insisted that what Third World countries need is to develop a productive transformation of their export structure.[65] This transformation would be aimed at producing more manufactured or high-technology products. In addition, according to this projection, the less

---

[64] There is a wide variance in the use of non-tariff barriers (NTBs) among the more developed nations. France places the greatest reliance on NTBs. More than 80 percent of its trade is affected by these measures. NTBs are also very prevalent in Belgium and the Netherlands. The United States ranks slightly below the overall levels of the more developed countries with 45 percent of its trade affected by NTBs. See S. Lair and A. Yeats, *Quantitative Methods for Trade-Barrier Analysis* (New York: New York University Press, 1990).

[65] For a statistical analysis of aspects related to this issue and some of the factors that have caused trade to rise faster than output, see A. Rose, "Why has trade grown faster than income?" in *International Finance Discussion Papers Nov. 1990* (Washington, DC: Board of Governors of the Federal Reserve System, November 1990).

developed nations need to insist on reduced tariffs, quotas, and non-tariff barriers for their products in the more developed nations.[66]

It is expected that economic adjustment plans have had a more positive impact in those Latin American economies which are exporting oil, such as Mexico and Venezuela.[67] These nations in particular received higher benefits from the oil price increases in 1973 and 1979. It is also expected that the impacts of economic adjustment plans have been less harmful in social terms in those Latin American countries which have traditionally better social services, usually from programs of the central governments. The most important Latin American examples are Uruguay and Costa Rica.

Standards for social conditions have worsened in most Latin American countries, especially since 1980. According to the Economic Commission for Latin America and the Caribbean (ECLAC), the eighties constituted the "lost decade" for Latin American countries, mainly because their social indicators worsened and fell bellow levels of the 1960s. [68] ECLAC also stressed the need for Latin American countries to effect economic transformation which would also contribute to social equity.

---

[66] This situation is important, among other reasons, because at a more basic level, international trade can affect the level of economic growth of an economy. With unemployed resources, an increase in export sales will lead to an overall expansion in production and an accompanying fall in the unemployment rate. International trade also allows for the purchase of capital goods from foreign countries and exposes an economy to technological advances achieved around the globe. Conversely, economic growth can affect the types of goods a country is able to trade. A technological advance in a country's import-competing sector could, for instance, lead to an overall reduction in the volume of trade of a country. Thus, international trade and economic growth are closely linked. See M. Gillis, *Economics of Development*, 2d ed. (New York: W.W. Norton, 1993), pp.145-54.

[67] These two countries have 85 percent of the total estimated oil reserves in Latin America. See Inter American Development Bank, *Economic and Social Progress in Latin America 1992 Report* (Washington DC: The Johns Hopkins University Press, 1993), pp.3-5, 6-7, 130-37, 182-91.

[68] See CEPAL, *Condiciones sociales en América Latina 1995*. (Santiago de Chile, Chile: CEPAL, 1996), pp. 23-46, 59-72.

The emphasis on social problems is underscored in an attempt to avoid the potentially

harmful effects of liberal economic measures on the poorest 44 percent of the population of

Latin America. Economic transformation must be achieved, according to ECLAC, through

efficient governmental agencies which must rely on private enterprises to carry out many of

their projects, activities, and goals. However, the government should continue to manage

and provide direction for the promotion of development in Latin American nations.[69]

In terms of social indicators, it is important to note that according to Rostow and his

theory of development, which was used as the main basis for the modernization theory, a

higher concentration of national wealth is likely to be observed during the first stages of

national development efforts. It is not until societies achieve the stage of "self-sustaining"

development that social indicators can improve at a national level. Finally, Jürgen

Habermas[70] claims that social conditions in Third World nations are the key elements in

explaining the crisis of legitimacy of governments in these countries. It is through

effectiveness and the implementation of national measures that are in the interest of the

majority of the population that governments can achieve "mass loyalty" from the population,

and effective and active support from a majority of their constituents.[71]

---

[69] The way in which a country grows, in economic terms, affects its pattern of international trade. A country can experience neutral growth, in which exports and imports grow at the same rate as GNP; pro trade biased growth, in which trade grows faster than GNP; or anti-trade biased growth, in which international trade may even fall. See S. Husted and M. Melvin, *International Economics* (New York: Harper Collins, 1995), p. 285.

[70] See J. Habermas, *Crisis of Legitimacy* (Boston: Beacon Press, 1984), pp. 23-34, 45-56, 64-66; and J. Habermas, *Theory of Social Communication* (Boston: Beacon Press, 1989), pp. 123-34.

[71] For a comparative and historical perspective on this topic, see Comisión Económica para América Latina y el Caribe (CEPAL), *Políticas para mejorar la inserción en la economía mundial* (Santiago de Chile, Chile: CEPAL, 1996), pp.153-62, 166-93; and Economic Commission for Latin America and the Caribbean (ECLAC). *Social Panorama of Latin America* (Santiago de Chile, Chile: 1997), pp. 13-17, 87-94, 145-50.

3.2. Methodology

3.2.1. Methodological Stages

The research design is based on a historical analysis in which the same group of subjects is compared to itself over several different periods of time. In this case, the basic statistical test was applied to the period 1960-1995. The type of data used were secondary quantitative data concerning international trade, macroeconomic variables and social indicators, particularly from the World Bank (WB), the Inter American Development Bank (IDB), the Economic Commission for Latin America (ECLAC), the United Nations Food and Agriculture Organization (FAO), the United Nations Development Program (UNDP), and the Economic System of Latin America (SELA).

Especially in the second stage of the methodology, the different groups of countries to be studied emerged from the network analysis models (core, semiperipheral and peripheral countries), from the export structures of the different nations (agriculture and mining, oil and manufacturing), the sizes of economies, and the regional division of Latin American nations into three groups: (a) Mexico, Central America, the Caribbean, (b) Andean countries, and (c) the Southern Cone countries and Brazil.

The general forms of processing and verifying the data in this study were related to a) network analysis models, and b) multiple regression models.

3.2.1.1. First stage: Network analysis models

This study used the network analysis model in order to determine the levels of integration that Latin American nations might have achieved into the international trade system: which nations had achieved higher levels of integration and which countries had become more marginalized in terms of international trade during the period 1960-1995. This

is the first part of the research problem and the systemic consideration of the globalization theory concerning worldwide trade relations.

In applying the network analysis models, the unit of reference was countries (nation-states) and the variable of relation within matrices was exports in current US dollars. The matrices covered an average of 96 percent of the total international trade from Latin America, and with one matrix for each of the following years: 1960, 1965, 1970, 1975, 1980, 1985, 1990, and 1995. The countries studies were Latin American nations and their most important trading partners, as follows: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela; and non-Latin American countries: Belgium, Canada, China, Denmark, Egypt, Finland, the former USSR, France, Germany, Hong Kong, Hungary, Ireland, Israel, Italy, Japan, the Republic of South Korea, the Netherlands, Norway, Portugal, Saudi Arabia, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

In other words, each one of the eight matrices contained the data regarding international trade among Latin American countries and their main international trade partners. Each matrix was a square with 47 rows and 47 columns corresponding to the 47 countries under study. Rows in each matrix contained the exports of a particular country, and each column contained the imports of a specific nation.

It was important at the first stage of the methodology to determine whether or not the Latin American nations had been forming a trading block with the United States during the 35 years under study. To arrive at an answer, this study calculated three characteristics: network analysis models, proportions of international trade from each Latin American nation,

and a coefficient of concentration. The first two indicators referred to a worldwide level, while the coefficient of concentration referred to the United States. All three sets of indicators were based on the eight matrices under study att this first methodological stage.

The network analysis models applied here produced two particular results: a) positional analysis, and b) cohesion analysis. These results revealed which countries formed the core, semiperipheral, and peripheral levels, and which countries formed cliques. This network analysis was performed on each of the eight different matrices of intra-trade relations: 1960, 1965, 1970, 1975, 1980, 1985, 1990, and 1995.

Results from the positional analysis and cohesion analysis were used to establish sets of countries for the regression analysis models that were determined in the second stage of this study - the macroeconomic analysis.

For each Latin American country, following each of the eight matrices, particular proportions of international trade were calculated. These proportions showed on a percentage basis what the relative weights of exports and imports were from each Latin American nation to the main world areas: Canada, the United States, Japan, Western Europe, and the rest of the world.

A coefficient of trade concentration was calculated for each Latin American country and each year of the matrices in reference to trade exchange with the United States. The results of these calculations were intended to show whether or not a trading block among nations of the Western Hemisphere had been formed during the period 1960-1995. This coefficient of concentration was based on the following formula:

$$
c = \left[\frac{\left(\sqrt[2]{x} \right) - \left(\sqrt[2]{\frac{1}{N}} \right)}{1 - \left(\sqrt[2]{\frac{1}{N}} \right)} \right]
$$

Where:

c	=	Coefficient of concentration;
x	=	% of exports from a specific country to the US;
N	=	Number of total trade partners of any particular country.

This formula is derived from the formula utilized by the Inter-American Development Bank (IDB) in its 1984 annual report, devoted to an assessment of Latin American economic integration agreements. This mathematical expression was first used, according to the IDB, by M. Michaely. [72]

3.2.1.2. Second stage: Multiple regression models

The second part of this methodology studied the impact of exports on economic growth. Quantitative country information was worked in a more traditional way within a simple vectorial presentation. It utilized the same units of reference for all countries, using individual values and not representing any type of relationship among nations. The values used in this second part were macroeconomic variables.

The models of multiple regression were determined in reference to: a) groups of Latin American countries divided into peripheral and semiperipheral countries; b) each group of

[72] See Inter American Development Bank , *IDB Annual Report 1984* (Washington, DC: The Johns Hopkins University Press, 1985), p. 116; and M. Michaely, *Concentration in International Trade* (Amsterdan: North Holland Publishing Co., 1962).

countries arranged according to four kinds of export structures; c) groups of Latin American nations arranged according to size of economies; and d) groups of Latin American nations divided according to regions. For each one of these categories the multiple regression models were determined for four periods: 1960-73, 1974-82, 1983-90 and 1991-95.

The model for multiple regression which was used was based on the model utilized by Gershon Feder in his study concerning exports and economic growth:[73]

$$\alpha GNP = a\ (\alpha L) + b\ (\alpha I) + c\ ((\alpha Xrg) * (X/GNP)) + Svdv$$

Where:

αGNP	=	rate of annual growth of gross national product
αL	=	rate of annual growth of labor force
αI	=	rate of annual growth of investments
αXrg	=	rate of annual growth of exports
X/GNP	=	the percent of exports over the gross national product
Svdv	=	specific variables presented as dummy variables.

This equation was used to get results from multiple regression analysis. The specific variables presented as dummy variables in the macroeconomic equation were related to: (a) structure of exports - oil, manufacturing, and agriculture/mining; (b) Latin American regions - Mexico/Central America/Caribbean, Andean, and Southern Cone; (c) positions - semiperipheral and peripheral countries; and (d) size of economies - large, medium, and small. This multiple regression model was studied during four periods of time: 1960-73; 1974-82; 1983-90; and 1991-95. See Table 3.1 for a summary of the main aspects of the methodology.

---

[73] Macroecnomic multiple regression model from G. Feder. "On exports and economic growth," *Journal of Development Economics* 12 (1982), pp. 59-73.

Table 3.1
Main Aspects of Methodology: A Summary

Stage	Objective	Instruments of Analysis	Periods	Expected Methodological Results
Network Analysis Models	- Core, semiperipheral and peripheral countries - Concentration of international trade from Latin American countries - Clique formations among countries from the matrices of international trade relations	- Network analysis models with the following results: a) Positional analysis; b) Cohesion analysis;	1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995	- List of countries by position: core, semiperiphery and periphery - Proportions of international trade from Latin American countries. - List of countries forming cliques.
Regression Analysis	- Impact of exports on economic growth	- Multiple regression analysis	1960-73; 1974-82; 1983-90; 1991-95.	- Impact of exports on economic growth in terms of (a) Semiperipheral, peripheral countries; (b) Structure of exports; c) Size of economies; d) Regional divisions.

3.2.2. Variables

See Tables 3.2 and 3.3 for variables' units of analysis and measurement and sources of data.

Table 3.2
Variables: Units of Analysis and Measurement

Stage	Variable	Units of Analysis	Units of Measurement
Network Analysis	Exports/imports	Countries –Latin American and main trade partners	US$
Regression Analysis	Gross national product	Countries	Rate of annual growth
	Labor	Countries	Rate of annual growth
	Investments	Countries	Rate of annual growth
	Exports	Countries	Rate of annual growth

3.3. Principal Results Expected

a. Categorization of countries according to their positions (a) from the network analysis model, that is, core, semiperipheral, and peripheral countries, and (b) according to the international trade relations of Latin American countries, and their proportions of international trade with the United States, Canada, Western Europe, Japan and the rest of the world, during the period of 1960-1995;

b. Changes in the formation of semiperipheral and peripheral countries according to the international trade relations of Latin American nations during the period 1960-1995;

Table 3.3
Variables and Sources of Data

No	Variable	Main Source of Data
1	Exports/Imports	United Nations Organization. *Yearbook trade for years* 1963, 1967, 1969, 1972, 1976, 1983, 1986, 1988, 1991 and 1997 (New York: ONU).
2	Gross national product (GNP) y gross national product per capita (GNP/pc)	Inter American Development Bank, *Economic and social progress in Latin America 1992 Report* (Washington, D C: The Johns Hopkins University Press, 1993).
3	Investments	United Nations Organization. *Human development report 1994* (New York: ONU, 1995). World Bank. *World tables 1995* (Baltimore: The Johns Hopkins University Press, 1996).
4	Labor	World Bank. *World tables 1995* (Baltimore: The Johns Hopkins University Press, 1996). Economic Commission for Latin America and the Caribbean (ECLAC). *Social panorama of Latin America 1996* (Santiago de Chile, Chile: 1997).
5	Exports	World Bank. *World tables 1995* (Baltimore: The Johns Hopkins University Press, 1996). Inter American Development Bank. *Economic and social progress in Latin America 1992 Report* (Washington, D C: The Johns Hopkins University Press, 1993).
6	Imports	World Bank. *World tables 1995* (Baltimore: The Johns Hopkins University Press, 1996). Inter American Development Bank, *Economic and social progress in Latin America 1992 Report* (Washington, D C: The Johns Hopkins University Press, 1993).

c. Clique formation from the network analysis models based on international trade relations of Latin American countries during the period 1960-1995;

d. Multiple regression models based on macroeconomic variables of Latin American countries for the periods: 1960-73, 1974-82, 1983-90, and 1991-95. These countries were grouped according to a) peripheral or semi-peripheral positions, b) structure of exports, that is, agriculture and mining, oil, or manufacturing; c) size of economies, that is, large, medium, or small; and d) region, that is, Mexico-Central America-Caribbean, Andean, or Southern Cone and Brazil.

Chapter 4

PREDOMINATE CONDITIONS FOR THE INSERTION OF LATIN AMERICAN
ECONOMIES WITHIN THE INTERNATIONAL TRADE SYSTEM

This chapter is presented in order to interpret and reach conclusions about the

participation of Latin American economies in the international trade system during the period

1960-1995. This chapter presents the general economic scenarios from a historical

perspective. Taking into account this information, we will be able to study the concrete

results of this paper (Chapters 5 and 6). In this section, two main aspects are included: (a)

a summary of the economic history of Latin American economies, which contains the

preponderate circumstances that external sectors of these economies were facing; and (b) the

major foundations to carry out macroeconomic adjustment plans in this region especially

since the late seventies. This last part is especially important because these adjustments were

mainly the platform from which exporting leading policies were implemented.

4.1. Main Characteristics of Latin American Economies 1960-1995

During the 1960s, most Latin American economies could be called developing

countries. Primary exports dominated trade, and product concentration was variable but

generally high. Industry contributed approximately 22 percent of the gross domestic

product, ranging from 11 percent in Bolivia to 25 percent in Brazil. On average, imported

consumer goods still accounted for as much as 17 percent of total imports and as much as

49

40 percent in Venezuela and Panama. Agriculture provided an average 46 percent of employment, and less than half of the population was urban. In the majority of nations, the rural sector fit the classic picture of a small export-oriented, plantation-type, modern sector coexisting with a large domestic-market-oriented traditional sector made up of almost feudal *"haciendas"* and small peasant farms. Attempts to animate industrialization after the Second World War resulted from the application of the import substitution model in Latin America.[74]

The twenty years that followed 1960 saw remarkable growth, especially when contrasted with the slow growth of the 1980s. Table 4.1 shows how, between 1965 and 1973, the weighted average growth rate of real GDP in Latin America (seven countries) was 7.4 percent, while in South Asia (four countries) it reached only 4.1 percent. Even East Asia's achievement (five countries) was only slightly higher (8.3%) during the same years. Later in the 1970s, Latin America's growth rate at 5.8 percent was not far below that of East Asia at 8.0 percent and significantly exceeded that of South Asia. The United States, meanwhile, grew less than 2 percent per year during the same period.

The most dynamic sector in this pattern of growth was industry. Latin American manufacturing increased rapidly during the 1960s and 1970s. Output at constant prices grew at more than 6 percent per year throughout the two decades. The rate of growth peaked in

---

[74] In the logic of the import substitution model, economists joined politicians in their support of the implementation of this attempt to promote industrialization in Latin America. They called attention to the lack of foreign exchange as an important constraint on growth. In a world where the terms of trade moved against traditional primary export products, domestic production would have to substitute for nonessential imports, freeing foreign exchange for needed inputs. Moreover, while technical progress in agriculture would leave labor unemployed, industry could absorb the growing population with increasing productivity and incomes. See W. Schmidt, *América Latina entre la polarización del mercado mundial y la apertura* (Quito, Ecuador: CAAP, 1993), in particular pp. 32-43, 56-67.

Table 4.1
Latin America, East Asia and South Asia: GDP Growth Rates 1965-1988
%

Regions / Countries	1965-73	1970-80	1980-83	1984-88
Latin America				
Argentina	4.3	2.2	-2.8	-1.9
Brazil	9.8	8.4	-1.3	3.7
Chile	3.4	2.4	-3.4	5.5
Colombia	6.4	5.9	1.4	4.3
Mexico	7.9	5.2	0.6	7.3
Peru	3.5	3.0	-2.9	0.6
Venezuela	5.1	5.0	-1.8	2.6
Weighted average	7.4	5.8	-1.1	2.7
East Asia				
Indonesia	8.1	7.6	4.8	3.3
South Korea	10.0	9.5	7.3	10.0
Malaysia	6.7	7.8	6.2	5.6
Philippines	5.4	6.3	2.2	1.3
Taiwan	10.4	9.2	5.4	9.3
Thailand	7.8	7.2	5.4	5.4
Weighted average	8.3	8.0	5.3	6.5
South Asia				
Bangladesh	—	3.9	3.6	3.9
India	3.9	3.6	5.4	4.3
Pakistan	5.4	4.1	5.3	7.3
Sri Lanka	4.2	4.1	5.3	3.9
Weighted average	4.1	3.7	5.4	4.5

Source:
M. Deas. *Latin America in Perspective* (Boston, MA: Houghton Mifflin, 1991), p. 82.

the 1960s and early 1970s. Despite the adverse impact on the region of the first oil shock in 1973, respectable rates of growth were maintained until 1980.

A very important feature of economic growth in Latin America during the 1960s was the development of industry and the diversification of new export lines. During that decade, the fast growth of manufacturing continued to be sustained principally by import substituting industrialization. In most countries these years were characterized by falling import coefficients and negligible exports of manufactured products. In 1965, for example, the region's exports of manufactured goods were worth less than US$750 million, compared with total exports valued at US$10.1 billion. In contrast, since the late sixties the region has seen a rapid expansion of manufactured exports and a parallel growth in imports of manufactured goods.[75]

Latin American exports of manufactured goods grew at an annual rate of 14 percent per year in the 1960s and 1970s. Such exports were boosted by specific trade promotion policies. In some countries, most notably Mexico and some of the Central American and Caribbean states, export-processing zones were established. In these zones, firms could set up assembly facilities to produce for world markets, free from the import tariffs and other

---

[75] In the twentieth century, Latin American countries have pursued similar economic policies. Import substituting industrialization policies were adopted in the 1930s in an effort to break dependence on primary exports. Although the limitations of this strategy were apparent by the late 1930s, the associated trade barriers still have not been completely dismantled. In the meantime, nearly every country in the region borrowed beyond its capacity to pay back the loans and declared itself broke in the debt crisis of the 1980s. B. David, *El nacimiento de los países latinoamericanos* (Madrid, España: Bruguera, 1989); and T. Halperin, *Historia de América Latina* (Madrid: España, Alianza Editorial, 1990), pp. 8-16, and 21-33.

restrictions that normally governed domestic production. An indisputably important market for the region has always been the United States.[76]

Interestingly, the various regional integration initiatives that took off during the 1960s and 1970s were not a major reason for the expansion. An important regional attempt at economic integration began with the formation of the Latin American Free Trade Area (LAFTA), originally comprising Argentina, Brazil, Chile, Mexico, Paraguay, Peru and Uruguay in 1960. Further initiatives for economic integration were the Central American Common Market (made up of El Salvador, Honduras, Guatemala, Nicaragua, and Costa Rica) in 1961, and the Andean Pact (formed by Bolivia, Colombia, Ecuador, Peru and Venezuela) in 1969. The aim in all three cases was to reduce tariffs within the region in order to stimulate trade and industrial growth which would eventually lead to economies of scale that, in turn, would help promote international competitiveness.[77]

All of these programs, however, ran out of dynamism as the "easy" concessions came to an end; that is, concessions on products not produced by both partners in the negotiation. Continued development of these regional integration schemes required a considerable degree

---

[76] Even at the beginning of the 1960s, relations between the United States and Latin America had changed. The Charter of Punta del Este, which formally inaugurated the Alliance for Progress, was signed on August 17, 1961. Until 1958, the United States consistently rejected proposals for an inter-American bank, stabilization schemes for export commodity prices, and Brazil President Juscelino Kubtschek's Operation Pan America. The violently unfriendly reception to Vice-President Richard Nixon in Peru and Venezuela in 1956 and Fidel Castro's takeover in Cuba in January 1959 made the United States aware of economic stagnation, inflation, and distributional issues in Latin America. The Inter-American Development Bank was established in April, 1959, and President Kennedy's proposal for an Alliance for Progress came six weeks after his inauguration. See E. Cardoso and A. Helwege, A. *Latin America's economy* (Cambridge, MA: MIT Press, 1994), pp. 63-66.

[77] In the 1950s, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua took steps toward economic integration. In 1960, the Central American Common Market (CACM) provided for free trade within the region, except for a list of mainly agricultural exempt items, and the harmonization of tariff rates to a common external tariff schedule. After several years, it also provided for harmonized tax policies, but the market's chief goal was to free intraregional trade to stimulate production of goods formerly purchased from outside, especially industrial goods. See E. Cardoso and A. Helwege, *Latin America's economy* (Cambridge, MA: MIT Press, 1994]), pp. 75-87.

of administrative sophistication and of political will to overcome conflicts of interest and mutual distrust. Neither appeared present in sufficient quantity.

As a result, intraregional trade did increase, both in absolute and in relative terms, but much of the increase was in primary products. The Central American Common Market and the Andean Pact helped boost manufactured exports in many of the smaller Latin American countries. But in the larger republics the shift of manufacturing production toward the export sector was only marginally affected by regional integration schemes. Thus, for the region as a whole, the growth of manufactured exports was determined primarily by sales to the rest of the world.[78]

Despite their rapid growth, however, manufactured exports continued to account for only a small share of industrial output. Even when manufactured exports are broadly defined to include processed raw materials, less than one-fifth of production was exported from most countries. Moreover, Latin America's trade deficit in manufactured goods, which was US$56.5 billion in 1980, continued to widen until the debt crisis hit in 1982.

The most significant change in the structure of manufacturing output since 1960 was the continued decline in the share of nondurable consumer goods. For the region as a whole, the decline was mainly a result of the increased percentage of industries producing inputs for other sectors; the share of capital goods and consumer durables remained virtually unchanged between 1960 and 1979. Even in the most advanced countries of the region, such

---

[78] However, Central American countries were facing regional trade difficulties. After a phase of euphoria, difficulties developed in the late 1960s in relations within the Central American Common Market. Especially Honduras, but also Costa Rica and Nicaragua, felt that free trade favored Guatemala and El Salvador, with their larger industrial bases. In addition, growing immigration from El Salvador into Honduran territory was a factor which resulted in a brief war between these two nations in the late 1960s. Honduras eventually withdrew from the CACM. See E. Cardoso and A. Helwege. *Latin America's economy* (Cambridge, MA: MIT Press, 1994), pp. 24-45.

as Argentina, Mexico and Brazil, with the largest capital and durable consumer goods industries, nondurable consumer goods accounted for only a quarter of industrial production compared to over half in the developed market economies.

This is one indicator of the narrow nature of the Latin American industrialization process. If the transport equipment industry, a large part of which was made up of car production, was excluded from the numbers given above, capital goods accounted for only 19 percent in Argentina. Among the smaller countries in the Andean region, the capital-goods sector accounted for less than 10 percent of production and throughout Central America, apart from Costa Rica, less than 5 percent. As a result, capital accumulation in Latin America continued to be highly dependent on imports of capital goods, and industrial growth continued to require substantial foreign-exchange earnings.

Despite the limited growth of the capital-goods sector, an impressive aspect of industrial development was the growth in technological capacity in the last twenty years. This key element in terms of increased resilience revealed itself in the growth of exports of technologically sophisticated products, the sale of "turnkey" plants, that is, plants which competed with the required technology, and direct foreign investment in Latin American firms themselves.[79] Though in general the technology gap relative to the developed world continued to grow, some local firms became internationally competitive on the basis of their technological efforts.

In Argentina, Brazil, Colombia, and Mexico, local firms in industries using cluster production, such as capital goods and pharmaceuticals, competed successfully with

---

[79] For a more specific discussion of international investment theory and development, see M. Michael, *International Money and Finance* (New York: Harper Collins, 1995).

multinational subsidiaries in domestic and neighboring markets on the basis of indigenous technological capacities. Although learning also occurred in continuous process industries, only in Brazil did such firms become internationally competitive. Brazilian firms, with their large and rapidly growing domestic market, succeeded in approaching the international technology frontier in industries such as steel and machine tools. Elsewhere in the region, however, small-scale production often prevented internationally competitive levels of production from being achieved.

A feature that increased both flexibility and vulnerability at the same time was the central role of multinational corporations in industrial growth. Although they contributed to the successful technological development, they also weakened indigenous entrepreneurial and technological capacity, given the easy access they provided to foreign sources of both. In the sixties, multinational corporations were the most dynamic element in the growth of Latin American industry. The protectionist polices of the import substitution era, together with liberal policies toward direct foreign investment, led to local production for local markets by firms which had previously exported, mainly because they wanted to preserve their Latin American markets.[80]

Multinational corporations played a major role in dynamic industries such as chemicals, motor vehicles, rubber products, and electrical goods. Their rapid expansion in

---

[80] Import substitution industrialization (ISI) played a successful role in fomenting Latin America's high growth rates prior to the 1980s, but failed by downplaying the market role. Protection led to overvalued exchange rates, and, hence, to an eventual reduction in the growth of exports. Import substitution policies exaggerated industrial work at the expense of agriculture. Moreover, relatively capital-intensive manufactures absorbed only a fraction of the increment in the labor force, placing pressure on the government to serve as an employer of last resort. Finally, as the resources taxed away from primary exports failed to increase, subsidies to industrial investment and growing government responsibilities put new pressures on the budget. Monetization of the deficit led to persistent inflation. E. Cardoso and A. Helwege, *Latin America's economy* (Cambridge, MA: MIT, 1994]), pp. 73-82, 85-88, 90-97.

this period led to the denationalization of local industry. In Argentina, Mexico and Brazil, for instance, the share of multinationals in manufacturing output increased from under 20 percent in the early 1960s to around 30 percent by the early 1970s. They were also acting within the overall protectionism of the Latin American economic scenario by that time.[81]

In the seventies, the multinational share of industrial production stabilized. It even fell in a number of Latin American countries. In Argentina, for example, it was 30.8 percent in 1973 and 29.4 percent in 1983. In Brazil, the multinational share of industrial capital fell from 34.4 percent in 1971 to 22.5 percent in 1979. The decline was partly a result of restrictive policies toward foreign investment introduced in a number of Latin American countries during the 1970s and partly a result of changing strategies by the multinational companies themselves. The result was the growth of new forms of foreign investment that did not rely on majority shareholdings in local subsidiaries, although this was not exactly the result expected from the application of the import substitution model.[82]

---

[81] The overall level of protection is measured by the effective rate of protection (ERP). ERP measures the degree of protection accorded to value-added in domestic industries, taking into account the level of protection afforded to both inputs and output. Value-added is the value of a firm's sales minus the cost of materials it buys to produce its goods:

$$ERP\ i = (VAdp\ /\ VAip)\ \text{-}1$$

Where:

ERPi	=	Effective rate of protection of industry i
VAdp	=	Value-added in domestic prices
VAip	=	Value-added in international prices

J. Sheahan, *Patterns in Latin America: Poverty, Repression, and Economic Strategy*. (Princeton, NJ: Princeton University Press, 1988).

[82] Nevertheless, complaints about import substitution emerged in the 1960s, a period of relatively strong growth in Latin America. The average real rate of growth in the region exceeded 4.5 percent between 1940 and 1968. By comparison to the 1.2 percent rate of the 1980s, the years of import substitution initiative seem golden. Average inflation rates were also relatively low, whereas 100 percent inflation was shocking in the 1950s, triple-digit inflation was common in the region during the 1980s. See Schmidt, W. *América Latina entre la polarización del mercado mundial y la apertura*. (Quito, Ecuador: CAAP, 1993), pp. 12-24.

In Brazil and Mexico the industrial output grew above the average rate for Latin America as a whole in the 1960s and 1970s. As a result, their share of the region's manufacturing increased from less than 50 percent to well over 60 percent. These two countries ave also consistently attracted the bulk of direct foreign investment in the region, averaging over 70 percent of the total during this period, as well as having contracted the majority of commercial loans to the region. The sales of the "*maquiladora*" industries clustered along the United States-Mexico border have been particularly buoyant. These factories assemble products from duty-free imported components and re-export the result.[83]

The experience of the Southern Cone countries (Argentina, Chile, and Uruguay) stands in contrast. In 1950, these countries had been the most industrialized in Latin America in terms of per capita manufacturing output. Subsequently, however, they experienced low rates of industrial growth. Following the military coups of the 1970s, they adopted policies that encouraged deindustrialization by cheapening imports. This trend was particularly marked in Argentina and Chile. Inspired by the neo-classical critique of the

---

[83] This "maquiladora" phenomenon as a means to achieve industrialization was very different from those which encourage the industrialization process within the import substitution policies. One of the most important factors in implementing the import substitution model resulted from the effects of the Second World War. The Second World War had accelerated industrialization. Capacity shortages existed throughout the industrialized countries. Latin Americans enjoyed a recovery in the demand for their raw materials and were even able to compete in some markets for manufactured goods. The internal demand stimulated expansion of the region's industrial capacity. T. Skidmore and P. Smith, *Modern Latin America* (New York: Oxford University Press, 1992), pp. 34-46.

import substituting industrialization model, these exchange rates and high domestic interest rates led to plant closures, rising unemployment, and declining industrial output.[84]

The Andean Pact countries, aware that their small domestic markets made industrialization difficult, attempted in the seventies to develop key sectors through a policy of joint industrial programming. With the exception of Ecuador, these countries had grown at rates well below the Latin American average in the 1960s. But despite the ambitious plans for engineering, steel petrochemicals and automobiles, the countries made little progress in developing regional sectorial programs.[85]

The Central American Common Market countries, in contrast to those of the Andean Pact, experienced rapid industrial growth in the 1960s, especially in the cases of Guatemala and El Salvador. It averaged 8.5 percent per year, compared with 6.7 percent for Latin America as a whole. Rapid growth was stimulated by the expansion of agricultural exports, the formation of a common market, and the increase in intraregional trade. In the 1970s, however, the process lost impetus and the rate of growth fell below the average for the region

---

[84] A commonly used definition of the real exchange rate is the nominal rate deflated by the ratio between domestic prices and foreign prices. If country A's currency is the peso, then its real exchange rate in dollar/peso terms is:

$$RER = (Pap / FP\$) (\$ / p)$$

Where:

RER	=	Real exchange rate
Pap	=	Prices of country A in pesos
FP$	=	Foreign prices in dollars
$ / p	=	Dollar per peso exchange rate

See T. Walther, *The World Economy* (New York: John Wiley & Sons, 1997).

[85] For a discussion of the history and general achievements of economic integration in Latin America, especially in terms of diversification of domestic and external production, see J. Vilaseca, *Los esfuerzos de Sísifo: integración económica en América Latina y el Caribe* (Madrid, España: La Catarata, 1994), pp 31-46, 63-67, 70-89.

as a whole. The decline was largely due to interruptions to external integration, such as the conflict between Honduras and El Salvador which upset trade between those two countries for the whole of the 1970s.[86]

More widespread than the phenomenon of the new exports of manufactured goods was the diversification within the primary export field. Exports of cut flowers from Colombia, shrimp from Ecuador, and fruits and vegetables from Chile, Central America and the Caribbean nations are examples of how improved methods of transportation and communications, combined with growing technical skills, particularly in marketing, permitted the region to expand the range of primary commodities in which it enjoys a comparative advantage. Within this picture of increased diversification, however, many countries remain extremely dependent on traditional primary exports and therefore continue to be vulnerable to unfavorable trends in their markets. This general condition continued even during the eighties (see Table 4.2).

Latin American countries also had an important geographical diversification of markets. In 1975, the developed market economies took 65 percent of Latin America's exports of agricultural raw materials, 80 percent of its ores and metals, and 72 percent of its fuels. Ten years later, the corresponding figures were 54, 65 and 71 percent. Among the developed countries, Japan emerged as a major buyer of Latin American copper, iron ore, and bauxite. The decline in the relative importance of the most developed economies as destinations for the region's primary exports contrasted with the growing significance of

---

[86] For a discussion concerning the economic effects of this conflict see F. Stirton, *Inside the Volcano: The History and Political Economy of Central America* (Boulder, CO: Westview Press, 1994), pp. 208-11.

Table 4.2
Primary Exports as a Percentage of the Merchandise Exports
of 14 Latin American Countries, 1987

Export	Percent of Merchandise Exports		
	More than 90 %	75 % to 90 %	50 % to less than 75 %
Oil	Venezuela, Ecuador		Mexico
Minerals	Bolivia (tin), Chile (copper)		
Agricultural raw materials[1]		El Salvador (coffee) Argentina (corn) Colombia (coffee) Paraguay (soybeans) Nicaragua (coffee)	Brazil (coffee) Uruguay (beef) Costa Rica (coffee)
Balanced exports[2]		Peru	

Notes:

Main primary exports are in parentheses.

1/ Includes fisheries and forestry.

2/ No commodity group accounts for more than 30 percent of primary exports.

Source:

World Bank, *World Development Report, 1987* (Washington, DC.: World Bank, 1987); Inter American Development Bank *Economic and Social Progress in Latin America, 1987* (Washington, DC.: IDB, 1987); and M. Deas. *Latin America in Perspective* (Boston, MA: Houghton Mifflin, 1991), p. 187.

new overseas markets in the Soviet Union, Eastern Europe, and other developing countries, particularly in Asia.[87]

The most evident feature of the commodity composition of Latin America's primary exports since 1960 was the rapid growth of fuel exports, which reflected the emergence of Venezuela, Mexico and, to a lesser extent, Ecuador as major petroleum producers. The fuel share of Latin American primary exports nearly doubled between 1970 (26 %) and 1980 (48 %). These products continued to have a low level of added-value.[88]

Regarding the main economic features of Latin America after 1980, it is necessary to underline that the regional crisis which started at the beginning of the 1980s guided a complex period of disequilibria and adjustments. Most countries of the region felt impelled to undertake structural reforms with the purpose of creating more stable economies which would become an integral part of the international context and would be capable of significant, sustained growth. Changes emphasizing economic policy, governments' commitment to reform, and the gradual stabilization of their economies coincided with favorable changes in international conditions.[89]

---

[87] Also, and in terms of foreign trade and agricultural products, the evidence is that primary commodity markets are unstable, and the concentration of exports in primary goods is risky. Good harvests worldwide can lead to a collapse in agricultural prices, especially in markets for tropical commodities, which do not benefit from price stabilization programs. Mineral prices are also unstable; demand is highly sensitive to recessions in industrialized markets because metals like copper are heavily used in construction and new equipment. This instability is exacerbated by speculative stockpiling. J. Sheahan, *Patterns in Latin America: Poverty, Repression, and Economic Strategy* (Princeton, NJ: Princeton University Press, 1988).

[88] The value-added component - the total price of a good or service less the cost of input materials to produce it - in international trade is, as expected, mostly related to the exports of the more developed nations. Preliminary figures for 1994 suggest that Germany had become the world's largest merchandise exporter, with 12.1 percent of world exports versus 11.4 percent from the United States. See S. Husted and M. Melvin, *International Economics* (New York: Harper Collins, 1995), p. 10.

[89] The 1980s stand in sharp contrast to the preceding three decades. Latin America's setback in this decade compares dismally with the surging performance of the Asian countries. Led by the four newly industrialized countries (NICs) of South Korea, Hong Kong, Singapore, and Taiwan, but extending to many others, Asia

The most visible factor of the economic crisis, within the domestic economic conditions of Latin American nations, was the external debt problem. Between 1978 and 1981, the region benefitted from an improvement in trade and a generous supply of external credit from the private international banking system.[90] These conditions enabled the region to implement expansionary economic policies which, in turn, made it possible for 11 countries to mark up average annual growth rates of over 4 percent (see Table 4.3.). In most cases, however, these accomplishments were accompanied by untenable balance of payment deficits. As a result, 15 countries had current account deficits amounting to more than 4 points of GDP, and in 10 of these the deficits were over 5 points (see Table 4.4.).[91]

In 1982 most Latin American and Caribbean countries were overcome by the deepest and longest economic recession to hit the region in the last 50 years.[92] Although external forces did help trigger the crisis, inconsistencies in internal economic policies were also at fault, for example, policies based on overborrowing from external lenders, an excessive

---

sprinted ahead in the 1980s at an average annual rate per capita growth in excess of 5 percent. J. Sheahan, *Patterns in Latin America: Poverty, Repression, and Economic Strategy* (Princeton, NJ: Princenton University Press, 1988).

[90] Terms of trade measures the relationship between the prices a nation gets for its exports and the prices it pays for its imports. This is calculated by dividing a nation's export price index by its import price index, multiplied by 100 to express the terms of trade in percentages:

Terms of trade = (Export price index/Import price index) x 100

See R. Carbaugh, *International economics* (Belmont, CA: Wadsworth, 1992), p. 57.

[91] Overvaluation of currencies is a good example of how external economic conditions and internal policymaking interacted in contributing to the debt crisis. At different times during the period 1978 to 1982, a number of countries in Latin America experienced a strong real appreciation of their currency, followed by balance of payment crises and real depreciation. Chile and Argentina were extreme cases of this process. See W. Schmidt, *América Latina entre la polarización del mercado mundial y la apertura* (Quito, Ecuador: CAAP, 1993).

[92] In comparative terms, there has been a slow-down of production in Latin American countries. The gross domestic product in terms of average annual growth in percent was 6.0 in 1965-80, and 0.6 in 1980-1993. See World Bank, *World Development Report 1995* (Baltimore: The Johns Hopkins University Press, 1996).

Table 4.3
Latin American Countries: Total Gross Domestic Product
(variations between annual averages)

Countries	1978 / 1981	1982 / 1984	1985 / 1990	1991 / 1995
Argentina	0.1	0.8	-0.9	7.6
Bolivia	0.4	-3.2	1.7	3.7
Brazil	4.1	1.0	2.8	2.3
Chile	7.2	-3.4	5.6	6.8
Colombia	4.9	2.2	4.7	4.0
Costa Rica	2.2	0.9	3.8	4.9
Ecuador	5.3	0.7	2.1	3.7
El Salvador	-4.1	-1.0	1.4	2.5
Guatemala	3.6	-2.0	2.3	4.0
Haiti	4.1	-0.8	0.2	-8.3
Honduras	5.1	0.5	3.2	3.3
Mexico	9.2	-0.5	1.6	2.6
Nicaragua	-7.3	0.7	-3.4	0.8
Panama	8.2	1.5	-0.4	6.9
Paraguay	10.5	-0.2	4.0	2.9
Peru	3.9	-2.6	-1.4	4.7
Dominican Republic	4.5	2.6	2.1	3.5
Uruguay	4.8	-5.5	3.3	4.7
Venezuela	-1.2	-2.7	2.4	3.0
Latin America	4.2	0.0	2.0	3.6

Source:
Economic Commission for Latin America and the Caribbean (ECLAC), *The Economic Experience of the Last 15 Years 1980-1995* (Santiago de Chile. Chile: ECLAC, 1996).

Table 4.4
Latin American Countries: Deficits on the Balance of Payments Current Account
as a Percentage of Gross Domestic Product (a)(b)
(percentages)

Countries	1978 / 1981	1982 / 1984	1985 / 1990	1991 / 1995
Argentina	0.8	2.2	1.3	2.5
Bolivia	9.2	8.7	12.5	9.3
Brazil	4.4	3.0	0.3	-0.2
Chile	9.3	9.3	4.5	2.9
Colombia	0.9	6.4	0.5	0.1
Costa Rica	13.4	9.5	8.4	5.6
Ecuador	7.5	4.4	6.0	4.2
El Salvador	4.3	6.0	5.5	4.6
Guatemala	4.1	3.7	4.4	5.1
Haiti	15.5	15.2	13.3	7.8
Honduras	10.5	9.2	8.4	11.1
Mexico	4.5	-1.0	1.0	6.8
Nicaragua	12.1	22.8	40.0	51.9
Panama	8.4	-1.7	-3.6	3.1
Paraguay	6.5	7.0	7.5	9.0
Peru	1.7	4.7	3.0	4.9
Dominican Republic	8.5	7.5	4.1	2.9
Uruguay	4.7	1.8	0.2	1.7
Venezuela	-0.1	-2.9	-1.7	-0.1
Latin America	3.7	2.1	1.2	2.8

Notes:
(a) Estimates of the gross domestic product (GDP) in current dollars were calculated on the basis of GDP data expressed in the local currency and the exchange rate applied to the relevant country's exports of goods and services.
(b) Negative figures refer to the ratio between a surplus on the balance of payments current account and GDP.
Source:
Economic Commission for Latin America and the Caribbean (ECLAC), *The Economic Experience of the Last 15 Years 1980-1995* (Santiago de Chile, Chile: ECLAC, 1996).

expansion of domestic spending, the implementation of stabilization policies based on exchange-rate lags, and methods of financial liberalization that had the effect of keeping real interest rates at very high levels for long periods of time, therefore influencing the procedures of capital formation.[93]

The interruption of voluntary international capital inflows following Mexico's declaration of a moratorium on its debt payments in August of 1982, rising international interest rates and deteriorating terms of trade forced the region into a drastic adjustment process aimed at generating a trade surplus large enough to cover the financial gap opened up by these events.[94] Between 1982 and 1984, the region's GDP stagnated, fixed investment slipped by slightly more than 5 points of GDP, and the deficit on the balance of payments in the current account shrank from 3.7 percent of regional GDP in 1978-1981, to 2.1 percent. This was the beginning of the economic crisis of the 1980s.[95]

---

[93] The first countries to resume the process of capital formation in the 1980s were those which had the least serious imbalances and were therefore able to use gradual policies, such as Colombia, and those which had access to external financing, such as Chile and Costa Rica. These countries were better able to cope with their external shortfalls, and this contributed to their domestic stability and growth and helped to raise expectations and investment levels by reducing uncertainty. Comision Economica para America Latina y el Caribe, *Latin America: The Economic Experience of the Last 15 Years (1980-1995)* (Santiago, Chile: CEPAL, 1996).

[94] The terms of trade for oil-exporting and non-oil exporting developing countries behaved very differently from 1963 to 1990. Oil exporters saw two sharp increases in their terms of trade, coinciding with the two large increases in petroleum prices engineered by the Organization of Petroleum Exporting Countries (OPEC) in 1973 and in 1979. After the early 1980s, oil prices fell sharply and so too did the terms of trade of the oil exporters. The terms of trade of the non-oil exporters have shown much less fluctuation. There were two significant down-turns, coinciding with the OPEC oil-price increases. Otherwise, the terms of trade appear to have been quite stable, with a slight downward trend over time. A statistical analysis of data suggests an average annual decline of 0.875 percent in the terms of trade of non-oil exporting developing countries from 1963 to 1990. See International Monetary Fund , *International Financial statistics Yearbook 1991* (Baltimore: The John Hopkins University press, 1992).

[95] In short, the cost of servicing the debt led to depressed living standards, hyperinflation, sharply reduced investment, and the prospect of reduced long-term growth. The inability of governments to sustain payment is reflected in the deep discount for Latin American debt in the secondary market. For example, the value of debt for Brazil in the secondary market went from 28.0 percent of value in April 1990 to 18.0 percent in August; Colombia, during the same two months of 1990 went from 66 percent to 63 percent. E. Cardoso, and A. Helwege, *Latin America's Economy* (Cambridge, MA: MIT, 1994), pp. 123-35.

To face these dominant economic problems which were mainly due to the external debt problem, Latin American nations carried out economic adjustment processes.[96] These adjustments were initiated in 1982 and they lasted until 1990. Among the consequences were successive declines in per capita GDP and consumption.[97] The region's investment coefficient fell steadily until it finally reached its lowest level in 1987, after which it slowly rose to slightly under 22 percent of GDP, which was still below the levels of the early 1980s.[98]

The extraordinary nature of the regional economic problems of the 1980s was reflected in a simultaneous and sustained downturn in the region's main economic and social indicators. Not only did the region witness a drop in production or a sharp decrease in its growth rate, the employment situation worsened, real wages declined, inflation heated up, and as this became more widespread, the external sector's problems deepened.[99]

---

[96] In order to facilitate economic adjustment plans, the Structural Adjustment Facility (SAF) was created by the IMF in 1986. Under its provisions, the IMF provides a line of credit to a member nation to help them finance structural reforms, such as financial reform to encourage greater domestic savings. Under the SAF and the Enhanced Structural Adjustment Facility (ESAF), which was established in 1988, the IMF extends loans primarily to Less Developed Countries (LDCs) for periods of up to 10 years at subsidized below market rates of interest. See T. Walther, *The World Economy* (New York: John Wiley & Sons, 1997).

[97] Latin American countries have had a compressing consumption phenomenon. This consumption in its average annual growth rate (percent) was: (a) general government consumption, 6.5 in 1965-1980 and 4.2 in 1980-90; (b) private consumption, 5.9 in 1965-80 and 1.2 in 1980-93. See World Bank, *World Development Report 1995* (Baltimore: The Johns Hopkins University Press, 1996).

[98] A decline in investment is another obstacle Latin American countries have had to face in attempting to achieve development. The average annual growth rate in percent of Latin American countries investment was 8.2 in 1965-80 and 2.0 in 1980-93. See World Bank, *World Development Report 1995* (Baltimore: The Johns Hopkins University Press, 1996).

[99] During 1995, inflation continued to abate in the region as a whole, either declining or remaining roughly constant in 18 of 22 countries. The median rate of inflation, which represents the inflation experienced by the typical country in the region, fell from 18 percent in 1994 to 17 percent in 1995. Comisión Económica para América Latina y el Caribe *Latin America: The Economic Experience of the last 15 Years, 1980-1995* (Santiago, Chile: CEPAL, 1996).

Latin American nations were enduring significant high levels of inflation during this period, mainly as a result of the devaluation processes. This situation was influenced by the fact that the region as a whole depended heavily on capital goods and productive inputs to carry out national production. In a few cases, mostly as exceptions, relaxed monetary policies were also responsible for this high inflation.[100]

During the post-World War II period, the growth achieved by Latin America and the Caribbean powered the rapid creation of new jobs and sweeping changes in a labor force that was expanding by 2.5 percent per year. Rapid urbanization reduced the percentage of the working population employed in the farm sector from 55 percent of the total in 1950 to 32 percent in 1980. But although the number of jobs created by the formal urban sector rose at an annual rate of 4 percent, this still was not fast enough to absorb all the new entrants into the urban workforce, whose rate of underutilization (unemployment plus employment in informal economic activities) remained at around 30 percent.

The crisis and adjustment processes of the 1980s shattered the fragile balance in employment which the region had struck during its preceding growth phase. Real wages shrank, open unemployment climbed, and the percentage of jobs located in segments having lower average productivity levels increased. Overall, the portion of the region's urban labor force that was employed in sectors which typically underutilized their workers' capabilities

---

[100] In order to keep inflationary forces under control and to deal with the relationship between strong and weak national currencies, appreciation or depreciation measures were taken into account by policy-makers in the region. In the short term, a difficult choice must be made between using a real appreciation of the currency to clamp down on inflation and developing export and goods-producing sectors capable of competing with imports. In the long run, an economy's stability depends to a large extent on the growth of these sectors, and it is therefore better to avoid any sharp real revaluations that might hinder the processes involved in achieving sustained increases in their productivity. One possibility, if the situation in the country justifies it, would be a gradual reduction of inflation in conjunction with the use of appropriate tools to control the entry of external resources and their impacts in terms of the real exchange rate and increased consumption. E. Cardoso and A. Helwege, *Latin America's Economy*. (Cambridge, MA: MIT, 1994), especially pp. 18-19, 114-18.

expanded at an average rate of 5 percent per year.[101] In contrast, employment in formal activities grew by half that amount, and most of that increase was accounted for by small firms and, to some extent, public-sector enterprises.

During the eighties the level of public expenditures in most countries plummeted in real terms as a consequence of the adjustment process, despite the increase in their financial burdens. Some countries, such as Argentina, Bolivia, Ecuador, Peru and Venezuela, made progressive reductions in their real levels of public spending during this period, although not without some ups and downs. Meanwhile, in other countries, such as Costa Rica, Guatemala, Mexico, and Uruguay, income regained its initial levels following the first adjustment process. In Chile, public expenditure rose and fell, but by 1989 it was at virtually the same level as it had been in the early seventies. Brazil, Colombia and Paraguay, on the other hand, had clearly raised their expenditure levels.

The financial burden represented by the public external debt increased at the start of the decade as the real exchange rate and the predominant international interest rate rose.[102] Soon thereafter, the cost of the public domestic debt climbed sharply as well, due to exceptionally high levels of interest rates.

---

[101] By the end of the eighties and during the nineties, Latin American countries had important variations in their economic structure. More than 40 percent of the labor force works in agriculture in Bolivia, Guatemala, Honduras, Nicaragua, and Paraguay. Economic development programs in these countries focus on issues of agricultural modernization, land reform, and delivery of social services to the rural poor. In the highly urbanized economies, such as Argentina, Uruguay, Chile, Venezuela, and Mexico, main policies are related to industrial investment and employment. See Inter-American Development Bank, *Economic and Social Progress in Latin America 1993* (New York: IDB, 1994); World Bank, *World Development Report 1993* (Baltimore: The Johns Hopkins University Press , 1995); United Nations Organization , *Human Development Report 1992* (New York: United Nations, 1993).

[102] A discussion concerning the debate over flexible exchange rates and development can be found in R. Dunn, "The Many Disappointments of the Flexible Exchange Rates", in *Essays in International Finance No. 154*. (Princeton, NJ: International Finance Section, Princeton University, 1983).

Sweeping fiscal adjustments which Latin American countries had to make in order to deal with the crisis in public finances were initiated during the first half of the eighties, when the external debt crisis was as its height. These adjustments made it possible to reduce the fiscal deficit from five to six points of GDP in most of the countries of the region. With a few exceptions, this did not produce satisfactory results, however, because adverse external conditions remained.[103]

In a general way, the adjustment programs typical of the 1980s called for an increase in revenues from all available sources. Particularly notable increases were achieved in the saving rates of state enterprises in Argentina, Colombia, Costa Rica and Chile; in receipts from indirect oil taxes in Ecuador; in social security contributions in Argentina and Uruguay; and in the tax load of local governments in Colombia and Uruguay. The adjustment processes of the nineties involved fewer countries, were less intensive, and placed greater reliance on an increase in tax receipts stemming from the growth of economic activity. This situation made it possible for restrictions on expenditure levels, which had already been reduced considerably during the adjustment programs of the 1980s, to become less stringent.

---

[103] If government expenditures exceed tax collections, the government must finance its deficit by borrowing or by printing money. The financing of the government budget deficit can be written as:

$$BD = Sb + Eb + Imb$$

Where:

BD	=	Budget deficit
Sb	=	Sales of bonds
Eb	=	External borrowing
Imb	=	Increase in money base

S. Brue, *Macroeconomics: Principles, Problems, and Policies* (New York: McGraw-Hill, 1990).

As a consequence of the adjustment during the 1980s public expenditure diminished substantially in real terms in most countries in the region, but during the 1990s this trend began to reverse direction. In fact, public spending levels reached record highs in nine countries in 1994 - Argentina, Bolivia, Chile, Colombia, Costa Rica, the Dominica Republic, Paraguay, Uruguay and Venezuela - and in Honduras in 1993. In Brazil, however, total expenditure mounted during the 1970s, peaked in 1987 and declined steadily thereafter, with the exception of 1992. In the majority of the remaining countries, expenditure also recovered appreciably in recent years, but in spite of this, 1994 spending levels were still lower than they had been in the early 1980s.

The economic conditions for 1991-1995 in Latin America as a whole stand out in sharp contrast with the regional economic performance in the eighties. GDP expanded at an annual rate of 3.6 percent and domestic demand grew by 4.4 percent: fixed investment climbed by over 8 percent per year and exports rose steadily, although much more slowly than imports did. In the course of the adjustment process of the 1980s and the subsequent economic recovery, the various countries exhibited marked differences from one another. These differences were primarily a function of how large the individual countries' debts and trade imbalances were at the time that the external debt crisis began, the changes seen in their terms of trade, the amount of financing they received during the adjustment, and the size of their public sector's external deficit.

As of 1995, the countries in which the continuous growth cycle for GDP had lasted the longest were Chile and Colombia (12 years), followed by Guatemala (9 years).[104] The

---

[104] In 1994, Jamaica rounded out eight years of steady growth in per capita GDP at an average annual rate of 3.6 percent and Uruguay marked its seventh year of growth with an average annual increase in this variable of 2.4 percent. Both countries registered a decline in 1995, however. See Economic Commission for Latin

average annual increase in per capita GDP during this growth cycle has been quite high in Chile (of 4.5 %), somewhat lower in Colombia (2.6%), and much lower in Guatemala (0.9%).

In terms of the GDP per capita over the years 1980-95, Latin American countries reveal appreciable differences among themselves. In 1995, this indicator was above its 1980 level in only nine countries: Colombia, Chile, Costa Rica, Panama, Argentina, Peru, Bolivia, El Salvador, and Venezuela. These countries were also closest to their own production frontiers.[105] In contrast, per capita GDP fell steadily in Haiti from 1981 on and in Nicaragua from 1984 onward. Fortunately, however, this downward trend was interrupted in 1995, in both cases due to a strong export performance in which favorable international prices were a contributing factor.

The regional economic conditions were significantly influenced by the investment factor. From 1991 to 1995, only Chile, Costa Rica and El Salvador had fixed investment coefficients that were close to or higher than their 1978-1981 levels. At the other end of the spectrum, investment coefficients of Brazil, Ecuador and Venezuela, for the same period, were even lower than they had been at the height of the crisis. A positive change in gross fixed investment as a percentage of GDP is also to be observed during the nineties. This change both reflected and contributed to the consolidation of the stabilization process. Although in a number of cases the upswing in this indicator started off from very low levels

America and the Caribbean (ECLAC), *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago de Chile, Chile: ECLAC, 1996), pp. 21-43.

[105] In 1994, eight countries had a per capita GDP that was equal to or higher than what it had been in 1980. In 1995, Argentina's per capita GDP slipped back below this level. See Economic Commission for Latin America and the Caribbean (ECLAC) *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago de Chile, Chile: ECLAC, 1996), pp. 56-68.

due to the adjustments and instability of the 1980s, the climbing or stable investment rates registered in most of the countries during the 1990s contrasted with the declining rates and fluctuations of earlier periods, and were certainly a positive development. It is well known that this plays a crucial role in determining the long-term success of stabilization processes.[106]

After experiencing a strong surge in inflation due to the imbalances and adjustments that followed in the wake of the 1982 regional crisis, most South American economies witnessed a downward trend, in some cases a very steep one, in their inflation rates. Nevertheless, there were still some countries, notably Venezuela and Brazil in the middle of the nineties, which did not share this trend or in which there was some doubt as to the permanence of the price stability that was achieved.[107]

These macroeconomic factors had repercussions on social conditions such as inequality, unemployment and poverty.[108] The degree of inequality in the labor market

---

[106] Overall, the faster growing countries have low inflation and high interest rates of investment in relation to GDP. Due to the uncertainty and instability of prices which it causes, inflation adversely affects investment and its efficiency and hence limits a country's growth potential. See Economic Commission for Latin America and the Caribbean (ECLAC) *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago de Chile, Chile: ECLAC, 1996).

[107] Monetarism explains inflation as the result of too much money chasing too few goods. The most common explanation for sustained money growth is the creation of money to eliminate budget deficits. Inflation is a monetary phenomenon in the sense that it cannot persist without sustained money growth. W. Baumol, *Macroeconomics: Principles and Policy* (Orlando, FL: Harcourt Brace Jovanovich, 1988).

[108] In 1994, the situation concerning employment was better in Chile and Colombia than it had been in the 1980s, both in urban unemployment and real wages. In other countries, such as Brazil, Costa Rica and Mexico, unemployment was down while real wages in formal economic activities had regained their former levels. Bolivia was the only country that experienced a combination with a drop in wages. In Argentina, Ecuador, Nicaragua, Peru and Venezuela, higher unemployment was coupled with lower real wages, with wage levels similar to those of the 1980s in the best cases. Only Panama had both higher wage levels in the modern sector and higher unemployment. See World Bank, *World Development Report 1995* (Baltimore: The Johns Hopkins University Press, 1996); A. Wood, *North-SouthTtrade, Employment and Inequality* (Oxford: Oxford University Press, 1994); and World Bank, *World Tables 1995* (Baltimore: The Johns Hopkins University Press, 1996).

lessened during the subsequent recovery period, after 1990, from the external adjustment in just two countries, Colombia and Uruguay, while in the rest of the region it remained the same or became even worse.[109]

With regard to poverty, in the early 1990s, the nature and prevalence of this condition varied among the countries of the region. Whereas the percentage of households below the poverty level rose throughout most of the region during the 1980s, some nations managed to alleviate this problem at the beginning of the 1990s. Many economies did not grow rapidly enough to reduce poverty to any significant degree, however, although others, including Argentina, Bolivia, Chile, Mexico and Uruguay, achieved a considerable decrease in this indicator. Nevertheless, only Chile and Uruguay managed to drive poverty below its pre-crisis levels. This achievement may be attributed to an improvement in income distribution in the second half of the 1980s. Also related is the capacity for internal savings within the region.[110]

Notwithstanding these general social conditions, Latin American nations again became recipients of external capital during the nineties. Between 1992 and 1995, as external constraints eased, these countries began to receive a heavy net inflow of resources

---

[109] During the 1990s, reforms in the area of labor were more limited than those in other social areas, and have focused on moderating layoff costs and making it easier to hire workers temporarily. The rules that have traditionally governed labor activity aimed at assuring labor stability and protection of the worker from unemployment, illness, and old age. However, these goals have not always been achieved because high and uncertain layoff and termination costs have led to excessive worker turnover, and high nonwage costs have encouraged the spread of the informal sector. Comision Economica para America Latina y el Caribe *Latin America: the economic experience of the last 15 Years, 1980-1995* (Santiago, Chile: CEPAL, 1996), pp. 98-103.

[110] Even though the region's rate of saving increased for the second consecutive year in 1995, it remained low. Meanwhile, the current account deficit of the region shrank from about 3 percent of GDP to roughly 2 percent. Inter-American Development Bank, *Economic and Social Progress in Latin America, 1996 Report.* (Washington DC: IDB, 1996).

which allowed them to cover their growing trade and current-account deficits. Indeed, in 1992 the region's trade deficit reappeared, imports grew twice as fast as exports, and the deficit on current accounts swelled to over 5 percent of GDP in nine countries (Bolivia, Costa Rica, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Paraguay, and Peru), although in most cases the income registered on their capital accounts more than outweighed the shortfall.[111]

Within this macroeconomic scenario it was evident that the export oriented policies were impacting regional economic conditions. Between 1970 and 1990, the volume of exports from Latin America and the Caribbean expanded steadily, at an average annual rate of over 6 percent. This increase was higher than that of gross domestic product (GDP) during the seventies and, obviously, during the crisis in the 1980s. In terms of purchasing power, however, the growth of exports was eroded by the drop in the terms of trade. From the mid-eighties onwards, as world trade accelerated, so did exports from the region. In some countries the rate of growth of export volumes rose significantly, particularly during the 1990s and especially in Bolivia, Brazil, Chile, Colombia, Costa Rica, Peru and Venezuela, as a result of the trade liberalization programs.[112]

---

[111] Capital flows to the region remained strong in most Latin American countries during 1995, despite a brief but sharp interruption in the first quarter of that year. These capital flows to countries other than Argentina and Mexico during the year as a whole were in fact larger than they had been in 1993. E. Cardoso, and A. Helwege, *Latin America's Economy* (Cambridge, MA: MIT Press, 1994).

[112] Trade liberalization in Latin America has been profound. Inthe one decade from 1985 to 1995, average tariffs dropped from rates of 44.6 percent to 13.1 percent, and maximum rates declined from 83.7 percent to 41 percent. Nontariff restrictions that affected 33.8 percent of imports cover, in 1995, 11.4 percent. Inter-American Development Bank, *Economic and Social Progress in Latin America 1996 Report* (Washington, DC: IDB, 1996), pp. 34-48.

Notwithstanding the importance of efforts to reinforce export promotion, in the great majority of cases, the real prices of the region's leading exports, which had shown a long-term decline, acted against export growth. From 1990 to 1995, only bananas and zinc brought higher prices than in 1980. The prices for copper and tin fell less dramatically than in 1980, nearly 13 percent on average.

Other products showed far more serious losses in relative prices, up to 40 percent in some cases. Sixteen of the 18 leading export products had experienced a steady, long-term decline, meaning that their relative prices had fallen for over 10 years on average, which forced the countries to redouble their exporting efforts in order to improve their external balances. Assuming that the exports of the region's countries were composed of equal shares of the following products: raw sugar, bananas, cocoa, coffee, beef, fish meal, maize, soja beans, wheat, cotton, wool, copper, tin, iron, lead, zinc, and crude petroleum, the average real loss in relative prices during the first half of the 1990s, as compared with the base year, 1980, was almost 36 percent.[113]

These adverse developments affected not only primary products, or commodities, but also industrial goods. Indeed, according to a recent analysis of trends in the real price index for a wide range of such goods, as compared with the index of manufactures, their 1992 prices were the lowest in 50 years.[114]

---

[113] Consumption growth was even strong during the 1990s, but investment and exports were the most dynamic sources of aggregate demand. Although many economies in the region experienced major consumption booms at some point in the 1990s, investment and exports appear to have been the most important sustained components of demand growth in most of them, as measured by changes in the ratio of real spending to real GDP. Comisión Económica para América Latina y el Caribe, *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago, Chile: CEPAL, 1996).

[114] See Economic Commission for Latin America and the Caribbean (ECLAC), *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago de Chile, Chile: ECLAC, 1996).

Another factor related to international trade during the nineties was that Latin American economies showed a significant reorientation to external trade, based heavily on more intensive exploitation of natural resources. Their export ratio rose from 11 percent of GDP in 1980 to 16 percent in 1990 and 19 percent in 1995. While in general the share of commodities in total exports tended to decrease, the increased contribution of manufactures and semi-manufactures reflected a strong bias towards industrial activities based on the processing of natural resources. However, it is important to point out that the competitive position of Latin America and the Caribbean clearly lagged behind that of the Asian developing countries or the four Asian "tigers." While the Latin American and Caribbean export structure changed significantly in favor of manufactured products that are more in demand, the region's share in OECD imports, especially in the more dynamic categories, made very limited gains. This last condition was affected during 1995 by the financial problems generated from the Mexican crisis.[115]

The most notable exceptions to this picture were the relative success of the Mexican motor vehicle industry and of the free zones (maquiladoras) of Mexico and the Dominican Republic. In both cases, transnational corporations played an important role. The figures showed that Latin America and the Asian developing countries pursued international competitiveness along very different paths. One related factor is access to the OECD import markets. Latin America as a whole region faced the need to catch up by exporting more

---

[115] The direct effects of the international financial turbulence generated by the Mexican economic crisis of 1994 were confined largely to Mexico and Argentina in 1995, but some other countries were indirectly affected. Because Argentina is such an important trading partner for Uruguay, the Argentine recession contributed to Uruguay's sharp downturn in 1995. Similarly, there is evidence that the drastic Mexican devaluation reduced the ability of exporters in some Central American and Caribbean economies to compete with Mexican exporters, thus creating an adverse spillover effect of the Mexican crisis to those nations. Comisión Económica para América Latina y el Caribe, *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago, Chile: CEPAL, 1996).

technological products, which comprised the most dynamic import categories in that megamarket, and to continue efforts related to economic adjustment policies.[116]

4.1.1 Summary

The following summarizes of the main characteristics of the Latin American economies during the period 1960-1995:

a) The countries which modified their export structure were Ecuador (oil), Mexico (oil and manufacturing), Brazil (manufacturing) and Haiti (light manufacturing from maquiladora products).

b) Linked to the dollar-gold pattern, economic conditions were relatively stable during the sixties, and thus more favorable for economic growth in the region;

c) The inflation which Latin American nations experienced during the sixties was far less than the inflation rates of the eighties.

d) After1974, because of the first shocking increase in oil prices and the more liberal regimes in terms of regional currencies' exchange rates, the region had more problems maintaining stable coefficients of economic growth;

e) In order to avoid economic adjustment processes, the non-oil exporters of the region, in particular, embarked on the generation of externaldebt that became

---

[116] During 1995, support for structural economic reforms in Latin America were put to the test as economic growth slowed and unemployment rose in several economies. Economic reforms were not reversed in 1995, and in several countries, most notably Argentina and Mexico, economic crisis was actually met with deeper and broader reform efforts. See World Bank, *World Development Report 1995* (Baltimore: The Johns Hopkins University Press, 1996); A. Wood, *North-South Trade, Employment and Inequality* (Oxford: Oxford University Press, 1994); and World Bank, *World Tables 1995* (Baltimore: The Johns Hopkins University Press, 1996).

a serious problem in the eighties. This decade had increases in production based on the inflow of national loans because of, among other things, the high levels of financial liquidity in the international sphere;

f) During the eighties economic adjustments were unavoidable. These measures reinforced the leading role of exports in the generation of employment, rather than the application of expansionary fiscal and monetary policies;

g) The most visible factor of the economic crisis, within the domestic economic conditions of Latin American nations, was the external debt problem. Between 1978 and 1981, the region benefitted from an improvement in terms of trade and the availability of a generous supply of external credit from the private international banking system;

h) During the eighties, regional devaluation of currencies was responsible for the "import processes of inflation". This situation resulted from the dependency of the region on productive imports rather than on luxury goods from other nations;

i) Inflation was a particularly significant problem in Peru, Bolivia, Costa Rica, Argentina and Brazil.

j) Economic adjustment processes made it possible to reduce the fiscal deficit by five to six points of the GDP in most countries of the region. With a few exceptions, however, this did not produce satisfactory results because adverse external conditions remained;

k) A comparison of the conditions existing in the early 1990s and in the second half of the 1980s reveals a number of important changes in the macroeconomic

environment, such as a moderate rise in the level of economic activity, a less deficit-prone public sector, a slower expansion of the money supply, a recovery in investment rates and a drop in unemployment;

l) Moreover, real exchange rates rose more slowly than they had at the height of the adjustment process, partly because of the greater inflow of capital to the region. In fact, in those countries that opted for stabilization policies based on greater use of available external resources, an actual appreciation of the currency was observed, especially during the middle of the eighties (e.g., Costa Rica and Honduras);

m) Because of external adjustment, the degree of inequality in terms of the labor market lessened after 1990 in just two countries, Colombia and Uruguay, while in the rest of the region it remained the same or became worse;

n) Whereas the percentage of households below the poverty level rose in almost every country during the 1980s, at the beginning of the nineties some nations managed to ameliorate this problem. While many economies did not grow rapidly enough to reduce poverty to any significant degree, in the early 1990s some countries, including Argentina, Bolivia, Chile, Mexico and Uruguay, did register a considerable decrease in this factor;

o) Regional economic conditions were significantly influenced by the investment factor. From 1991 to 1995, only Chile, Costa Rica and El Salvador had fixed investment coefficients that were close to or higher than their 1978-1981 levels. At the other end of the spectrum, investment coefficients of Brazil,

Ecuador and Venezuela, for the same period, were even lower than they had been at the height of the crisis;

p) A positive change in gross fixed investment as a percentage of GDP was also observed during the nineties. This change both reflected and contributed to the consolidation of the stabilization process. Although in a number of cases the upswing in this indicator began from very low levels due to the adjustments and instability of the 1980s, there were climbing or stable investment rates registered in most of the countries during the 1990s, in contrast to the declining rates and fluctuations of earlier periods;

q) Especially during the eighties and to some extent during the nineties, trade liberalization and labor-market reform had the combined effect of increasing unemployment levels. Those companies unable to compete with foreign firms in the domestic market laid off workers and governments drastically reduced the numbers of civil servants and short-term contracts;

r) Labor-market and fiscal reforms normally operated to reduce the minimum wage in real terms, both to save government spending on social provisions and to maximize employment during economic restructuring;

s) Although the real minimum wage declines during economic crisis, it can subsequently increase once economic growth is sustained. That was the case in Chile;

t) The impact of fiscal reform, the liberalization of trade and domestic capital markets, and increased inflow of foreign capital substantially increased the

wealth of the top two deciles of income earners, in particular the capitalist

class and entrepreneurs;[117]

u) During a phase of economic structuring, the informal sector tends to expand as

more enterprises wish to enter the unregulated sector; this was the general

circumstance for marginal urban sectors during the eighties in Latin

American countries.[118]

4.2 Major Theoretical Foundations of Economic Adjustment in Latin America

Conditions to carry out economic adjustment programs existed in many middle

income countries by the end of the seventies. In 1979, many small nations had difficulty

surviving the second round of oil price increases. By the end of the 1970s, there were fewer

financial resources in the international bank system than there had been in 1974 to continue

the lending cycle which had spiraled many developing nations into large national debts.[119]

At the beginning of the 1970s, as a result of the increase in prices engineered by the

Organization of Petroleum Exporting Countries (OPEC) in October 1973, the nations which

lacked the capacity to produce oil had sufficient international financial resources to avoid the

---

[117] See R. Gwynne and C. Kay, *Latin America Transformed: Globalization and Modernity* (London : Arnold Publs. 1999), especially pp. 21-26; and V. Bulmer-Thomas, *The New Economic Model in Latin America and Its Impact on Income Distribution and Poverty* (London: Mcmillan 1996).

[118] See A. Wood, *North-South Trade, Employment and Inequality* (Oxford: Oxford University Press, 1994); Economic Commission for Latin America and the Caribbean (ECLAC), *Latin America: The Economic Experience of the Last 15 Years, 1980-1995* (Santiago de Chile, Chile: ECLAC, 1996); International Monetary Fund, *International Financial Statistics Yearbook 1991* (Baltimore: The John Hopkins University Press, 1992); and D. Green, *Silent Revolution: The Rise of the Market Economies in Latin America* (London: Cassell, Wellington House, 1999), pp. 32-43, 89-96, and 130-45.

[119] V. Bulmer-Thomas, *Studies in the Economics of Central America* (London: MacMillan, 1992).

pain of economic adjustment. At that time, private international banks were maintaining significant levels of liquidity and were willing to lend to developing nations. These resources generated the problem of external debt in the long run, but they solved the problem of lack of money for many underdeveloped nations in the immediate situation.[120]

At the end of the seventies, the international scenario had changed and international financial resources were no longer readily available. The more developed nations were facing recession in their economic systems, and the international prices of commodities, which are the most important exports from many developing nations, were falling in international markets.[121]

In summary, the general situation of middle income countries worldwide at the beginning of the eighties was characterized by: a) dealing with the recession of the more developed nations; b) facing a lack of financial resources in the private international banking system for continued loan opportunities; and c) grappling with the need for monetary funds to compensate for the second oil price increase and the already contracted external debt duties.[122]

---

[120] E. Torres-Rivas, *Interpretación del desarrollo social centroamericano* (San Jose, Costa Rica: EDUCA, 1993).

[121] Less Developed Countries (LDCs) are also suspicious that developed countries use labor standards as a pretext for restricting their exports. It is understandable that, because LDCs are poorer, exchange rate-adjusted direct wages will continue to be higher in developed countries than in LDCs. Proponents of labor standards, including the AFL-CIO in the United States, do not concern themselves with direct wages alone, but instead talk about raising working conditions throughout the world. Their objective is to create minimum standards with regard to hours worked, occupational safety, vacations, health care, pensions, and other worker benefits and protection. Even though apparently well-intended, such rules can have negative repercussions on LDCs, because they raise production costs, rendering these countries less competitive and preventing them from improving their internal conditions. See T. Walther, *The World Economy* (New York: John Wiley & Sons, 1997).

[122] M. Martinez, *Democracias de fachada* (San Jose, Costa Rica: FLACSO, 1991).

4.2.1 Conditionality

Economic conditions during the eighties forced many nations to turn to international institutions for financial assistance, especially with the International Bank for Development and Reconstruction (IDEP), the World Bank (WB) and the International Monetary Found (IMF). These international organizations formulated terms for lending money to nations. These terms were known as "conditionality", and they established the main framework within which macroeconomic decisions must be implemented at the national level. This conditionality was a prerequisite for a nation to become eligible to borrow financial resources and a means of guarantee for the payment of previously contracted debt.

In general terms and based on the theoretical foundations of macroeconomics, the most common conditions that caused a nation to borrow were the following:

a) A significant deficit in balance of payments, mainly because of instabilities in the trade balance - more imports than exports. The balance of payments situation was affected by the low prices paid for exports, due to the economic recession in the more developed nations. At the same time, the higher interest rates in the United States automatically increased debt duties. In addition, a complementary but not less significant fact was that many middle income countries needed to import equipment and several means of production from the more developed nations;[123]

[123] See C. Krauss, *Inside Central America* (New York: Summit Books, 1992), pp. 17-24; 32-43; 210-15; 221-23; and H. Kissinger, *Report of the National Bipartisan Commission on Central America.* (Washington, DC: U.S. Government Printing Office, 1984), especially chapter one.

b) High levels of unemployment derived not only from structural economic limitations within each nation, but also from the fact that investments from the private and public sectors were at lower levels than in previous years;[124]

c) High levels of inflation which prevented stability in the implementation of productive processes by private and public sectors. It created an environment of uncertainty and a lack of confidence in international transactions. At the same time, many nations were facing decreasing levels of international monetary reserves;

d) Significant levels of governmental fiscal deficit, which was a principal cause of a rise in inflationary rates in the domestic market. Because governments were receiving lower amounts of taxes, they printed domestic currency and created an internal debt problem, which increased the amount of money at the local level and therefore increased the level of inflation.[125]

This general picture and the interaction of its elements can be analyzed from a macroeconomic perspective. From this point of view, the higher the level of production of a particular country, the higher the tendency to increase its imports. When economic growth is low, imports tend to also be low as well. With slow economic growth, the balance of trade becomes because exports usually are higher than imports; however, in the case of a stagnant economy, higher levels of unemployment are unavoidable.

---

[124] For the relationships between export capacities and employment, see F. Stirton, *Inside the Volcano: The History and Political Economy of Central America* (Boulder: Westview, 1994), pp. 79-92, 160-63.

[125] E. Torres-Rivas, *Centroamerica: las democracias posibles* (San Jose, Costa Rica: FLACSO, 1990).

The opposite situation is evident when there are higher levels of economic growth. In this case, there are lower levels of unemployment, but usually this condition has negative results in the balance of trade since a stronger economy tends to foster more imports than exports. [126]

When a country has the two "extreme" conditions of either high level economic growth, or low level economic production, there are clear choices in terms of macroeconomic prescriptions. When the levels of national production are low, there are positive results in the balance of trade and negative effects on employment variable. In this case it is necessary to implement expansionary fiscal and monetary policies which will decrease, at least temporarily, the level of taxation, and provide more money to the national system. All that is being done in this case is to "push" the economy. As a result of these actions, it is expected that the balance of trade will decrease, but levels of employment will increase. [127]

When the economy of a country is experiencing high levels of economic growth, it has negative numbers in the balance of trade and favorable numbers in unemployment. In this case, it is important to implement fiscal and monetary contractionary policies, such as increasing taxes and reducing the amount of money available in the national economic system. Another possibility is to increase the interest rate, which makes lending more difficult and reduces the total output of the national economy. As a result, there will be better balance of trade figures, even if there is relatively more unemployment. The purpose

---

[126] J. Coatsworth, *Central America and the United States* (New York: Twayne Publishers, 1994), pp.163-72; and D. Moreno, *The Struggle for Peace in Central America* (Gainsville: University Press of Florida, 1994), pp. 152-55; 202-207.

[127] H. Rosa, *AID y las transformaciones globales en El Salvador* (Managua, Nicaragua: CRIES, 1993).

of such contractionary fiscal and monetary policies is to avoid an "overheating" of the economy.[128]

In both "extreme" conditions there is no controversy concerning the macroeconomic dispositions. However, problems arise in economic systems such as those of the small economies of developing countries with the following characteristics:

a) Market mechanisms that are not working "normally" according to macroeconomic models of more developed nations;

b) High levels of inflation mainly due to the printing of new money by the government; [129]

c) High levels of unemployment combined with a negative situation in the balance of trade.

With these characteristics, many underdeveloped nations faced an environment of stagflation, that is to say, inflation with economic recession and thus unemployment. In addition they had a negative numbers balance of trade. Here lies the controversy. If expansionary fiscal and monetary policies are applied, the economy is being "pushed:" the problem of unemployment is thus somewhat lessened, but the balance of trade deteriorates. If contractionary fiscal and monetary policies are applied, the balance of trade problem is solved, but unemployment increases.[130]

---

[128] P. Samuelson, *Principios de economía* (Mexico: Fondo de Cultura Economica, 1990).

[129] N. Keith, *New Perspectives on Social Class and Socioeconomic Development in the Periphery* (New York: Greenwood Press, 1990), pp.167-71; 178-81; and V. Sethuraman, *The Urban Informal Sector in Developing Countries* (Geneva: International Labour Office, 1991), pp. 12-21.

[130] S. Fisher, *Macroeconomics* (New York: MacMillan, 1994).

In order to solve this problem, it is important to realize the significant limitations of traditional fiscal and monetary approaches. The solution provided through the terms of conditionality of international organizations mainly consisted of the following steps/moves/procedures:

a) To promote exports as a means to improve both the balance of trade and the current levels of employment, avoiding the unilateral approach of the application of traditional fiscal and monetary policies alone;

b) To reduce governmental fiscal deficits. Indeed, at the beginning of the eighties, the IMF established a governmental deficit limit of 3 percent of the gross national product in a particular country;

c) To generate revenues for the government based on indirect taxes, that is to say taxes on consumption rather than taxes on income and property. By implementing this measure, a larger reduction in imports was expected;

d) To depreciate and devaluate national currencies to stimulate investment and to improve conditions in international reserves.[131]

All of these steps were factors in generating positive results in controlling inflation, improving the trade balance, and increasing employment in some sectors of economic activity. The main problem could be identified as an increase in the number of people living below the poverty level and within conditions of social marginality, due largely to three principal conditions:

---

[131] J. Ragan, *Principles of Economics* (New York: Harcourt Brace Jovanovich, 1991), pp. 200-205, 235-37, 267-70; and T. Hailstones, *Viewpoints on Supply-side Economics* (Reston, VA: Reston Publs., 1984).

First, an increase in taxes was supported by social sectors which depended on wages and salaries, because they did not have significant levels of property in fixed factors of production. This compounded the pre-existing situation where a significant portion of society was already living with high levels of unemployment.[132]

Second, concerning the trade liberalization processes, contraction in import levels tended to elevate the prices of basic goods mainly because imports comprised not only luxury products, but technological products that were indispensable in many national production spheres.[133] In many underdeveloped nations, industrial capacity of production was usually aimed at producing terminal goods, instead of intermediate products, such as fertilizers, machinery, and equipment parts.

Third, in developing nations conditions of high competitiveness and open market economies did not exist as in more developed nations. This made it possible for functional monopolies to act within the conditions of the domestic market of a particular nation. In this way, a distortion in prices of some goods was caused by the speculation of a few suppliers of a particular product. This situation distorted free price movement basically due to supply and demand mechanisms. Again, the result was an even larger contraction in the levels of effective internal demand, and thus another factor which increased poverty levels.[134]

Broader conditions of marginality are defined as situations in which poor sectors are living in the margin of regular economic mechanisms in the domestic market because,

---

[132] R. Alexander, *Financiamiento externo, deuda y transformacion productiva* (San Salvador, El Salvador: UCLA, 1990).

[133] There are other factors affecting trade liberalization. For example, the rush to buy imports after the government enacts liberalization will be particularly large if buyers suspect that trade barriers may go back up in the future. See P. Kouri, *Debt, Stabilization and Development* (New York: Basil Blackwell, 1989).

[134] J. Ragan, *Principles of Economics* (New York: Harcourt Brace Jovanovich, 1991), pp. 264-65.

although they have needs, they do not have the economic capacity to acquire the products to satisfy those needs. This marginality can be compensated for by the mechanisms of the marginal or informal economy in urban centers, or by the activities of the peasant economy in rural areas, by which families in the countryside take advantage of family work and produce food for self-sustainment.[135]

Understanding all these factors, the basic foundations for explaining the implementation of economic and social adjustment programs in developing countries are apparent. These measures attempted to solve problems in the national accounts, but they actually increased the conditions of poverty in these nations. These programs of economic adjustment can be studied as "pragmatic" dispositions, and they can be interpreted more concretely using the theories of world-systems and globalization. This analysis is possible because these programs were a response to national conditions which were in turn greatly influenced by international economic factors.

Factors from the foreign arena affecting economic adjustment measures included (a) inflationary pressures from the devaluation of currencies, (b) the higher costs of oil, (c) the significant degree of high external vulnerability, especially in small economies, and (d) the low level of value-added for agricultural products as primary exports, which are largely affected by the fact that they are not essential products and that they depend on weather conditions for production.[136] These elements lead to the conclusion that for many

---

[135] N. Saca, *Politica de estabilization y deuda externa* (San Salvador, El Salvador: UCA, 1991).

[136] P. Vuskovic, *Pequeños países periféricos en America Latina* (Managua, Nicaragua: CRIES, 1990).

developing countries, in order to have economic adjustment processes which result in higher

degrees of success, it is vital to change the structure of their exports.

Chapter 5

LATIN AMERICA IN THE INTERNATIONAL TRADE SYSTEM: RESULTS AND DISCUSSION

5.1. Research Problem and Research Statements

The main objective in this chapter is to establish answers to the first part of the research problem as stated in Chapter 3, the research design. What significant changes occurred in trade relations between Latin American countries and their main worldwide trade partners - the United States, Western Europe, and Japan - during the period 1960-1995?

Because (a) the theory of globalization is the main theoretical framework for this study, and (b) the major specific characteristic of globalization to be analyzed here is the degree to which Latin American countries have or have not become integrated into the international trade system, as demonstrated by interaction with their worldwide trade partners, this chapter addresses the questions formulated in the research design for the first methodological stage. Namely, to determine how might Latin American countries have changed their positions from peripheral to semiperipheral. The main hypothesis is as follows:

a) For the feature of trade among Latin American nations:

a.1.) Null hypothesis: Latin American countries were not more integrated among themselves in terms of trade in 1995 than they were in 1960;

92

a.2.) <u>Research hypothesis</u>: Latin American countries did change their situation in terms of integration among themselves during the period 1960 to 1995.

b) For the feature of trade between Latin American countries and their main international partners:

b.1.) <u>Null hypothesis</u>: Latin American countries were not more integrated into the international trade systems in 1995, as they were in 1960, than they were in 1960; they did not change their positions (peripheral and semiperypheral).

b.2.) Research hypothesis: Latin American countries have changed their situation in terms of integration in the international trade system; they changed their positions (peripheral and semiperypheral). Specifically, Latin American nations became: (a) more integrated into the international trade system (confirming a feature of the theory of globalization); (b) less integrated into the international trade system (confirming the phenomenon of segregation).

In terms of the international trade relationship that Latin American countries had with the United States, this first methodological stage studies the evidence whether or not exports from Latin American countries increased during the period 1960-1995, allowing these nations to form a trading block with the United States. In terms of the particular/alternative research statements this chapter seeks to establish whether or not (a) Mexico, Central American and the Caribbean nations were forming a trading block with the United States; and (b) Andean and Southern cone countries plus Brazil were forming a trading block with Western European countries.[137]

---

[137] (a) Mexico, Central American and Caribbean countries include: Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Haiti, the Dominican Republic, Jamaica, and Trinidad and Tobago; (b) Andean countries include: Colombia, Ecuador, Peru, Bolivia and Venezuela; and (c) Southern Cone

5.2. Basic model and indicators

The basic model has the assumption that with more globalization in terms of international trade, Latin American nations have more integration within the international market. This study is taking into consideration three main indicators to deal with the research problem: (a) network analysis models; (b) proportions of trade, that is to say percents of international trade from Latin American nations; and (c) coefficients of concentration for imports and exports for each Latin American nation during the period 1960-1995.

The use of network analysis models here is based on the characteristic that these models, unlike the traditional statistical models based on vectorial quantitative information, work with data presented as the quantification of relationships among actors. In this case actors are countries under study. These quantifications acquire the form of vectorial spaces, presented as matrices.

Taking into account the characteristic of vectorial spaces, network analysis considers not only the actors or subjects of research from an individualistic perspective, but also considering the interrelations that they form and the changes in those relations over a period of time.[138] Network analysis models can be complemented by the use of cluster analysis,

---

countries and Brazil include: Argentina, Brazil, Chile, Paraguay and Uruguay.

[138] In addition to the equivalence analysis to determine positions, and cohesion analysis to determine cliques, network analysis models usually imply six specific kinds of indicators: (a) transformations - row stochastic, column stochastic, and row-column stochastic; (b) centralization analysis, which determines the power of each actor; (c) contagion analysis, which is useful in determining cause-effect relationships with exogenous variables from the data contained in the matrices; and (d) equilibrium analysis by which we can determine the stability or instability of the complete system under specific conditions and time. See T. Schott, *Structure, Reference Manual* (New York: Columbia University Press, 1993), pp. 4-14.

following an approach based on a vectorial/? presentation of characteristics for each actor using time series data.

These kinds of network analysis models can be used with parametric statistical tests for hypothesis evaluation (analysis of variance, z-test, and t-test) and with non-parametric tests, such as Chi Square, test of Median, Krusball-Hallis, and test of Friedman. Regression analysis is recommended in order to determine how the relationships among actors can change over certain periods of time.

Network analysis can be used to determine the structure of relationships, how these relationships operate over time, and what pattern, if any, can be identified from the different kinds of interaction among actors. Actors can be individuals, institutions, enterprises, governments at different levels of organization, or countries.

The technique of network analysis was first developed in the field of sociology. At present, this research and methodological tool is being used in business studies to determine patterns of competition, cooperative agreements, evaluation of strategic or tactical links, and efforts of technological innovation, especially in the production of "high-tech" products, such as electronics, computer systems, medical equipment, and biotechnological procedures. Network analysis can be an indispensable tool in identifying the "structural holes" among competing firms and their value in terms of stock market actions, future financial trends, and the best time to establish competitive or cooperative efforts with other enterprises.

However, only preliminary studies have been undertaken using network analysis to measure and evaluate interrelations and power structures in international development and international economics, particularly in the areas of community development, international trade, international financial systems, technological innovations, military expenditure and

cooperation, and migrational movements among countries.[139] In particular terms, two or more actors will have the same position because they have the same pattern of relationships, both in terms of number of other actors (countries) with whom they interact, and also in terms of the quantity of these relationships (amount of exports and imports). It is accepted that actors in the same position act as competitors because they have a similar specific role within the network. Two or more actors form a clique when they have strong links among themselves and relatively weak links with the other actors forming the network under study. In this case, cliques will be formed by countries which have strong commercial bonds with each other.

Indicators, that is, proportions, are given as percentages and coefficients of concentration and have been calculated from the corresponding formula indicated in the research design of this study.

To test the phenomenon of globalization or segregation, this study used:

a) A coefficient of correlation to identify the general trend of Latin American countries' participation into the international trade system;

b) The polynomial model and its coefficient of determination regarding Latin America's international trade participation.

---

[139] Some other examples of network analysis applications are: (a) informal organization patterns within private institutions, communities or public agencies; (b) patterns of relationships and cultural practices of competition/cooperation among different individuals, institutions, enterprises or countries; (c) quantification and prediction of trends in terms of interrelations among individuals, institutions, and their different sets of interests; (d) formal leaders and real leaders within enterprises, governmental agencies, or communities; (e) groups of individuals who act in terms of cooperation/competition with other groups inside a specific unit of sociological or institutional analysis within a particular time frame and set of circumstances.

5.3. Results and discussion

Table 5.1 shows that during the period 1960-1995, Central American nations tended to form cliques. This can be attributed to the effect of the Central American Common Market which began to be effective in 1961. It is also clear that during the seventies and because of the armed conflict between Honduras and El Salvador in 1969, Honduras was "excluded" from the clique formed by Central American nations.

Even before Colombia and Venezuela formally engaged in a trade agreement with Mexico in 1993, they tended to form a clique, especially since the eighties. Also, since 1969, they have been part of the regional trade agreement known as the Andean Pact.[140] However, the countries of the Andean Pact do not appear to have formed a clique, neither during the seventies nor during the eighties. This would indicate that this agreement did not affect the main flow of export and import orientations of these nations.

The existence of a trading block can be observed between the Southern Cone countries and Brazil. Even during the seventies, Argentina, Brazil, Paraguay and Uruguay tended to form a trading block. Moreover, Brazil and Chile appear to have formed a clique since the beginning of the eighties. These countries have been part of trading block MERCOSUR since 1993. The influence of the North American Free Trade Agreement (NAFTA) can be observed in the formation of the clique by the United States, Canada and Mexico in 1995. The cliques which were formed during the sixties and seventies were affected by the economic crisis of the eighties. In the nineties, Latin American countries tended to form strong trading relationships with the United States, Canada and Western

---

[140] The "Group of Three" agreement was ratified by the governments of Colombia, Mexico and Venezuela in 1993. The Andean Pact began its formal operations at the end of the sixties. See section 3.3, Main characteristics of Latin American economies 1960-1995, in this document.

Table 5.1
Cliques from the Network Analysis Model

Year	Cliques
1960	(1) Els Hon; (2) Arg Ven Bra Chi
1965	(1) Arg Bra- Chi; (2) Els Gua Hon; (3) Col Tri; (4) Mex Ven USA- Can
1970	(1) Els Gua Cos Nic; (2) Jam Tri; (3) Par Uru; (4) Ven Per Bra USA Can Bel; (5) Hai Fra; (6) Ecu Col Ger; (7) Mex Jap; (8) Bol Arg Nor; (9) Chi Isr UKI
1975	(1) Els Gua Cos Nic Pan; (2) Bol Peru; (3) Guy Tri; (4) Par Uru Bra Arg; (5) Ven USA- Can Bel; (6) Col Fra; (7) Ecu Chi Ger; (8) Mex Jap; (9) Dor Ita Net Swi; (10) Jam UKI
1980	(1) Per Sko; (2) Bol Swi; (3) Dor Jam; (4) Cos Gua Els Pan; (5) Ven Bol; (6) Uru Exu; (7) Nic Fra; (8) Can USA -Ger; (9) Ecu Arg Ita; (10) Chi Bra Jap; (11) Hon Tri Net; (12) Guy Nor; (13) Mex Spa; (14) Col Swe; (15) Hai Den UKI
1985	(1) Bol Arg Bra Chi; (2) Dor Hai; (3) Cos Gua Nic; (4) Per Exu; (5) Jam Ire; (6) Uru Isr; (7) Hon Mex Jap; (8) Guy Nor; (9) Col Ven UKI
1990	(1) Els Nic Gua Hon; (2) Jam Tri; (3) Per Col Ven; (4) Cos Nor; (5) Uru Mex Swi; (6) Ecu Arg Chi Bra
1995	(1) Cos Gua; (2) Els Hon Nic Pan; (3) Arg Bra Chi Par; (4) Jam Tri; (5) Bol Uru; (6) Ecu Per Col Ven; (7) Mex Can USA Isr

Notes:
Arg = Argentina; Bel = Belgium; Bol = Bolivia; Bra = Brasil; Can = Canada; Chi = Chile; Col = Colombia; Cos = Costa Rica; Den = Denmark; Dor = Dominican Republic; Ecu = Ecuador; Els = El Salvador; Exu = Ex Soviet Union; Fra = France; Ger = Germany; Gua = Guatemala; Guy = Guyana; Hai = Haiti; Hon = Honduras; Ire = Ireland; Isr = Israel; Ita = Italy; Jam = Jamaica; Jap = Japan; Mex = Mexico; Net = Netherlands; Nic = Nicaragua; Nor = Norway; Pan = Panama; Par = Paraguay; Peru = Peru; Sko = South Korea; Spa = Spain; Swe = Sweden; Swi = Switzerland; Tri = Trinidad and Tobago; UKI = United Kingdom; Uru = Uruguay; USA = United States; Ven = Venezuela.

European nations. The application of structural economic reform and the reinforcement of export promotions in Latin America were evidence of this.

From Table 5.2, "Positions from the Network Analysis Model," it is evident that the United States, Canada, Italy, France and Germany occupied core positions for most of the period 1960-1995 in international trade links with Latin America. However, it is important to point out that in 1995 this set of core countries for the Latin American sub-system of international trade was reduced to the United States and Canada. Speaking generally, this indicates that Latin American nations were forming a trading block with the U.S.

Another outcome of the position results from network analysis is that there was a correlation between size of the economy and semiperipheral position. Argentina, Brazil and Mexico, the three main economies in the area, were in the semiperipheral position, followed by Venezuela and Chile in 1980, and also by Colombia in 1990 and 1995. Venezuela, Chile, Colombia and Peru formed the middle-sized economies group in Latin America. All the other economies from this region, the small economies, were confined to the periphery. This is an indication of the importance of economic integration not only in terms of having the advantage of larger markets and the opportunity to operate with economies of scale, but also because it is important to have a strong position in the international market derived from a common international trade policy.[141]

Tables 5.3 and 5.4 display features of worldwide international trade volume. Special attention is focused on the conditions of Latin America and developed nations. From these tables it is evident how the more developed nations have gradually increased their

---

[141] For a discussion on the advantage of economic integration and its impact on development, see B. Balassa, *Theory of Economic Integration* (London: Harcourt, 1964).

Table 5.2
Positions from the Network Analysis Model

Year	Core Countries	Semiperipheral Countries	Peripheral Countries
1960	Ger, Ita, Bel, Fra, Can, Net, Swe, UKI, USA, Ire	Arg, Ven, Tri, Per, Jam, Mex, Bra	Uru, Gua, Dor, Col, Pan, Els, Ecu, Cos, Hon, Guy, Nic, Par, Bol, Hai, Chi
1965	USA, Fra, Can, Den, Spa, Ire, Ger, Jap	Bra, Ven, Arg, Col, Mex	Ecu, Par, Bol, Hai, Chi, Hon, Tri, Dor, Jam, Guy, Pan, Per, Cos, Uru, Gua, Els, Nic
1970	USA, Can, Fra, Ger, Ita, Jap	Arg, Mex, Bra, Ven	Col, Ecu, Par, Bol, Hai, Chi, Hon, Tri, Dor, Jam, Guy, Pan, Per, Cos, Uru, Gua, Els, Nic
1975	USA, Can, Fra, Ger, Ita, Jap	Arg, Mex, Bra, Ven, Col	Ecu, Par, Bol, Hai, Chi, Hon, Tri, Dor, Jam, Guy, Pan, Per, Cos, Uru, Gua, Els, Nic
1980	USA, Can, Ger, Fra, Ita, Jap	Arg, Mex, Bra, Ven, Chi, Col, Per	Ecu, Par, Bol, Hai, Hon, Tri, Dor, Jam, Guy, Pan, Cos, Uru, Gua, Els, Nic
1985	USA, Can, Ita, Jap, Ger, Fra	Arg, Mex, Bra, Chi, Ven	Col, Ecu, Par, Bol, Hai, Hon, Tri, Dor, Jam, Guy, Pan, Per, Cos, Uru, Gua, Els, Nic
1990	USA, Can, Bel, Ita, Ger, Fra	Arg, Bra, Mex, Ven, Col, Chi	Ecu, Par, Bol, Hai, Hon, Tri, Dor, Jam, Guy, Pan, Per, Cos, Uru, Gua, Els, Nic
1995	USA, Can	Arg, Bra, Ven, Mex, Chi, Col	Ecu, Par, Bol, Hai, Chi, Hon, Tri, Dor, Jam, Guy, Pan, Per, Cos, Uru, Gua, Els, Nic

Notes:
Arg = Argentina; Bel = Belgium; Bol = Bolivia; Bra = Brasil; Can = Canada; Chi = Chile; Col = Colombia; Cos = Costa Rica; Dor = Dominican Republic; Ecu = Ecuador; Els = El Salvador; Fra = France; Ger = Germany; Gua = Guatemala; Guy = Guyana; Hai = Haiti; Hon = Honduras; Isr = Israel; Ita = Italy; Jam = Jamaica; Jap = Japan; Mex = Mexico; Nic = Nicaragua; Pan = Panama; Par = Paraguay; Peru = Peru; Spa = Spain; Tri = Trinidad and Tobago; Uru = Uruguay; USA = United States; Ven = Venezuela.

Table 5.3
Total Volume of International Trade:
Worldwide and from Developed Nations
(millions of US$)

Year	Total Volume of World Trade		Total Volume from Developed Nations[1]	
	Imports[2]	Exports[3]	Imports	Exports
1960	135 133	128 275	89 180	85 845
1965	197 493	187 010	137 328	128 591
1970	328 723	313 860	237 796	224 908
1975	902 998	873 770	614 620	578 597
1980	1 873 874	1 811 382	1 415 194	1 276 886
1985	1 923 422	1 935 209	1 485 311	1 285 630
1990	3 566 693	3 437 400	2 589 825	2 467 895
1995	3 922 472	3 934 614	2 835 475	2 838 553

Notes:
1/ OECD countries: USA, Canada, Western Europe, Central Europe, no former socialist countries, Israel,
Japan, Austria, New Zeland, and South Africa.
2/ Imports: CIF
3/ Exports: FOB
Source:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations, 1964,
1966, 1967, 1974, 1978, 1981, 1992, 1993, and 1996).

Table 5.4
Total Volume of International Trade:
From Developed Nations and Latin American Countries
(millions of US$ and %)

Year	Latin American Countries millions of US$		Developed Nations[1] % of the world		Latin American Countries % of the world	
	Imports[2]	Exports[3]	Imports	Exports	Imports	Exports
1960	9 860	9 969	66	66	7	8
1965	11 723	12 653	69	69	6	7
1970	18 037	16 635	70	70	6	5
1975	53 816	44 512	68	68	6	5
1980	108 787	104 927	71	68	5	5
1985	109 916	103 258	72	70	4	5
1990	118 473	131 190	73	72	3	4
1995	192 469	165 479	74	73	4	4

Notes:
1/ OECD countries: USA. Canada. Western Europe. Central Europe. no former socialist countries, Israel, Japan, Austria. New Zeland. and South Africa.
2/ Imports: CIF
3/ Exports: FOB
Source:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations, 1964, 1966. 1967. 1974. 1978. 1981. 1992, 1993, and 1996).

participation in the international market from 66 percent of the international trade share in 1960 to 74 percent in 1995. On the other hand, Latin American nations during the same period were reducing their total participation in the international market. They went from 8 percent of that market's share in 1960 to 4 percent in 1995 (see also Figures 1 and 2). These figures are especially important as they indicate that, under recent international trade links, a globalization and segregation process was being developed. This and the need for more efficient economic integration mechanisms are important and crucial points of this study.

Figure 1 shows the trend by which Latin America as a region went from eight percent of the total international trade in 1960, to 4 percent in 1995. The figure also shows the polinomial model which represents this trend in mathematical terms. This model is based only on the relationships of two variables, Latin American nations' share of the world trade and years. However, its coefficient of determination (R^2) is 0.8105, which indicates that these data fit with moderate accuracy within the mathematical model.

$$y = 3 \text{ E-07}x^6 - 4 \text{ E-05}x^5 + 0.0014x^4 - 0.0251x^3 + 0.2094x^2 - 0.9009x + 8.3966$$

$$R^2 = 0.8105$$

Where

y = Latin American percent share of the world international trade,
x = years.
R^2 = coefficient of determination.

Figure 2 presents the index of Latin American and developed nations' share of world trade. The Latin America index (100 in 1960) had decreased by 50 percent in 1995, while
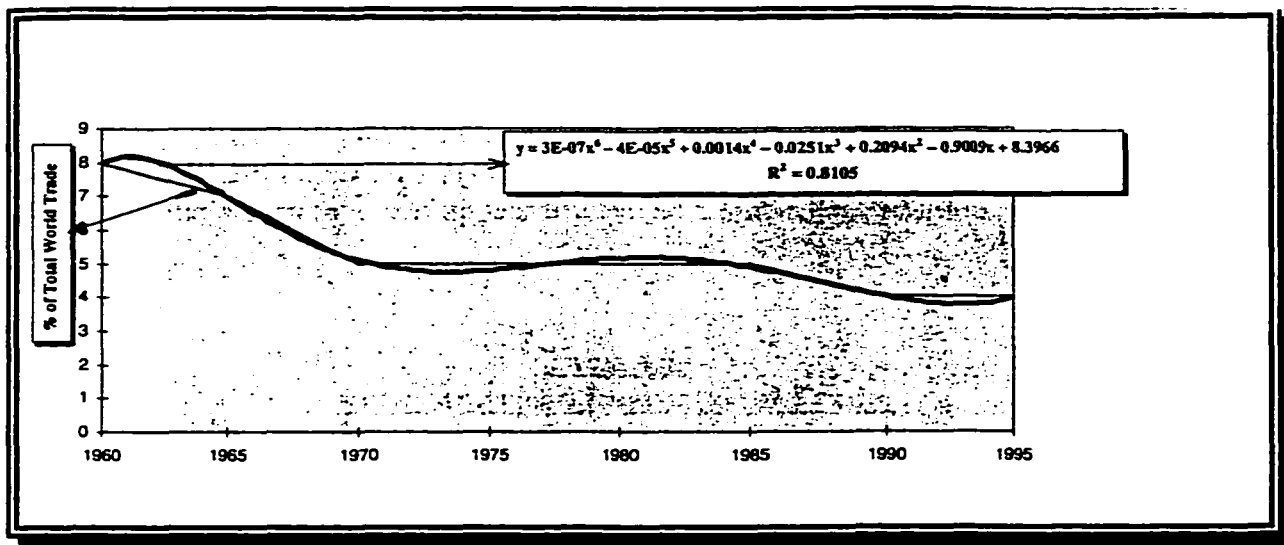
Source: Table 5.4.

Figure 1

Latin American International Trade as % of Total World Trade
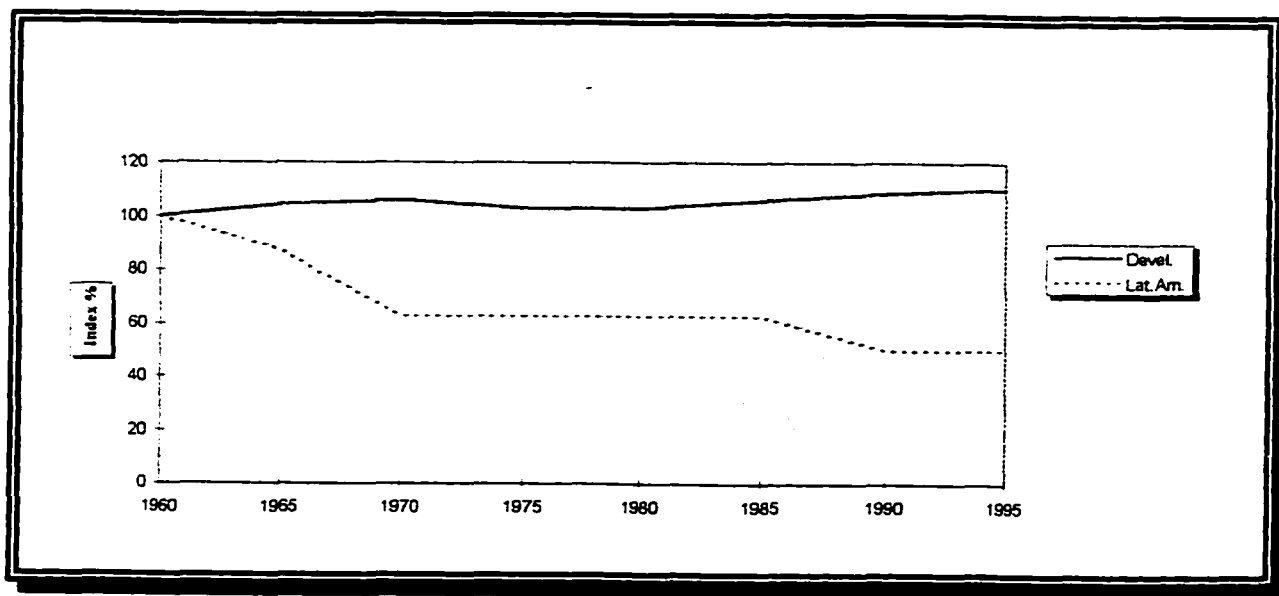
Source: Table 5.4

Figure 2

Index of World Exports from : (a) Developed Nations, and (b) Latin American Countries

the index of the more developed nations increased their share by 11 percent during the same period. This demonstrates the recent worldwide system based on globalization/segregation phenomena.

The assumption that Latin American nations were forming a trading block with the United States is addressed in terms of the orientation of Latin American exports and imports. From data in Tables 5.5 and 5.6. show that, in terms of exports, Mexico, Central American countries and Caribbean countries tended to form a trading block with the U.S. The Southern Cone countries appear to have formed a trading block with Western Europe, and the Andean nations appear to have been in an intermediate position.

The general trend for all countries was to reinforce their export sector with trade to the U.S. Notice how Latin American exports to the U.S. increased from 24 percent in 1960 to 41 percent in 1995, while West European countries tended to have a weaker position as importers of Latin American products (see also Figure 3).

In terms of imports, as seen in Tables 5.7 and 5.8, small economies gravitated toward more links within Latin America. This is especially evident for Bolivia, Jamaica, Trinidad and Tobago, Paraguay and Uruguay. It seems that Argentina is outside these trends and has never formed a trading block with the U.S.

The general tendency has been for Latin American imports to be 17 percent from the region, 51 percent from the U.S., 9 percent from Japan, 14 percent from Western Europe, and 8 percent from the rest of the world. Again, the main external areas for Latin American international trade, in addition to internal regional links, have been the U.S. and Western Europe.

Table 5.5
Latin American International Trade:
Countries and Their Exports to World Regions
(%)

Year	USA	Latin America	Western Europe
1960	Col(66), Cos(57), Ecu(72), Jam(37), Nic(40), Pan(86)	Par(67)	Arg(56), Bol(48), Bra(38), Chi(73), Dor(50), Els(46), Gua(40), Hon(36), Mex(54), Per(64), Tri(50), Uru(55), Ven(45)
1965	Col(51), Cos(56), Ecu(56)	Par(66), Uru(59)	Arg(61), Bol(54), Bra(62), Chi(67), Dor(62), Els(35), Gua(39), Hon(53), Jam(39), Mex(41), Pan(47), Per(74), Nic(64), Tri(50), Ven(52),
1970	Tri(64), Nic(34), Ven(50), Pan(69), Cos(42), Dor(89), Ecu(45), Hon(60), Jam(57), Mex(71)	Els(33), Gua(37)	Arg(56), Bol(49), Bra(48), Chi(61), Dor(62), Els(35), Per,(42) Col(42)
1975	Ven(53), Tri(83), Per(33), Cos(44), Dor(69), Hon(67), Mex(61), Jam(38), Nic(37), Pan(71)	Bol(38), Ecu(45), Els(30)	Arg(33), Bra(40), Chi(42), Col(41), Gua(37), Par(46), Uru(45)
1980	Tri(76), Mex(67), Pan(57), Bol(34), Cos(39), Dor(68), Ecu(43), Els(40), Hon(54), Jam(40)	Par(45)	Arg(35), Bra(43), Chi(43), Col(52), Gua(34), Nic(48), Per(39), Uru(44), Ven(75)
1985	Jam(51), Ven(43), Mex(66), Cos(41), Dor(80), Tri(74), Ecu(76), Els(38), Hon(51), Per(49), Gua(40), Pan(67)	Bol(62), Uru(33)	Arg(30), Bra(35), Chi(39), Col(43), Nic(41), Par(56)
1990	Pan(43), Tri(75), Jam(34), Mex(73), Col(47), Cos(43), Dor(73), Ecu(63), Els(35), Gua(42), Hon(63)	Bol(43), Par(53), Uru(40)	Arg(42), Bra(39), Chi(42), Nic(64), Per(43), Ven(53)
1995	Ven(65), Mex(71), Tri(67), Col(41), Cos(50), Dor(63), Ecu(49), Els(45), Hon(55), Jam(39)	Arg(38), Bol(40), Gua(43), Nic(29), Par(52), Uru(41)	Bra(35), Chi(34), Pan(47), Per(29)

Notes:

Arg = Argentina; Bol = Bolivia; Bra = Brasil; Can = Canada; Chi = Chile; Col = Colombia; Cos = Costa Rica; Dor = Dominican Rep.; Ecu = Ecuador; Els = El Salvador; Gua = Guatemala; Guy = Guyana; Hai = Haiti; Hon = Honduras; Jam = Jamaica; Mex = Mexico; Nic = Nicaragua; Pan = Panama; Par = Paraguay; Peru = Peru; Tri = Trinidad and Tobago; Uru = Uruguay; USA = United States; Ven = Venezuela.

Source:

United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations. 1964. 1966. 1967. 1974. 1978. 1981. 1992. 1993. and 1996).

Table 5.6
Latin American International Trade:
Proportion of Exports to World Regions
(%)

Year	Canada	USA	Latin America	Japan	Western Europe	Rest of the World	Total
1960	2	24	16	5	51	2	100
1965	2	19	12	6	56	5	100
1970	4	37	14	6	37	3	100
1975	5	40	19	5	26	6	100
1980	1	35	14	7	35	8	100
1985	2	46	12	6	27	7	100
1990	1	41	14	7	30	6	100
1995	2	41	21	6	25	5	100

Source:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations. 1964.
1966. 1967. 1974. 1978. 1981. 1992, 1993, and 1996).

Table 5.7
Latin American International Trade:
Countries and Their Imports from World Regions
(%)

Year	USA	Latin America	Western Europe
1960	Bra(42), Chi(45), Col(77), Cos(88), Dor(89), Ecu(90), Els(77), Gua(91), Hon(93), Mex(78), Nic(91), Pan(73), Per(60)	Par(71), Uru(61)	Arg(55), Tri(93), Ven(58), Jam(51)
1965	Bol(95), Bra(45), Chi(56), Col(71), Cos(84), Dor(88), Ecu(92), Els(66), Gua(85), Hon(83), Jam(68), Mex(79), Nic(85), Pan(59), Par(53), Per(57), Uru(34)		Arg(70), Tri(37), Ven(86)
1970	Bol(62), Bra(36), Chi(39), Col(56), Cos(52), Dor(83), Ecu(68), Els(48), Gua(51), Hon(57), Mex(68), Nic(57), Pan(42), Per(37), Ven(48)	Par(61), Tri(35), Uru(62)	Arg(39), Jam(81)
1975	Chi(54), Col(71), Cos(61), Dor(63), Ecu(78), Els(52), Gua(65), Hon(63), Nic(59), Jam(68), Mex(72), Per(53), Pan(68), Ven(50)	Arg(38), Bol(72), Tri(65), Par(65), Uru(62)	Bra(34)
1980	Bra(24), Chi(47), Col(58), Cos(61), Dor(63), Ecu(78), Els(69), Gua(58), Hon(57), Mex(72), Nic(47), Pan(68), Ven(48), Per(78)	Bol(75), Par(69), Uru(81)	Arg(35), Jam(86), Tri(81)
1985	Bra(40), Chi(42), Col(46), Cos(51), Dor(63), Ecu(78), Els(61), Gua(63), Hon(58), Mex(75), Per(53), Tri(70), Ven(50)	Arg(35), Bol(68), Jam(56), Par(78), Uru(72)	
1990	Chi(38), Col(54), Cos(76), Dor(88), Ecu(61), Els(63), Gua(71), Hon(65), Jam(69), Mex(73), Per(52), Ven(47)	Bol(69), Par(79), Tri(82), Uru(81)	Arg(34), Bra(31)
1995	Bra(34), Chi(36), Col(60), Cos(70), Dor(82), Ecu(61), Els(58), Gua(74), Hon(57), Jam(75), Mex(71), Ven(48)	Arg(34), Bol(81), Nic(68), Par(88), Per(83), Tri(79), Uru(81)	

Notes:

Arg = Argentina: Bol = Bolivia: Bra = Brasil: Can = Canada: Chi = Chile: Col = Colombia: Cos = Costa Rica: Dor = Dominican Republic: Ecu = Ecuador: Els = El Salvador: Gua = Guatemala: Guy = Guyana: Hai = Haiti: Hon = Honduras: Jam = Jamaica: Mex = Mexico: Nic = Nicaragua: Pan = Panama: Par = Paraguay: Peru = Peru: Tri = Trinidad and Tobago: Uru = Uruguay: USA = United States: Ven = Venezuela.

Source:

United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations. 1964. 1966. 1967. 1974. 1978. 1981. 1992. 1993. and 1996).

Table 5.8
Latin American International Trade:
Proportion of Imports from World Regions
(%)

Year	Canada	USA	Latin America	Japan	Western Europe	Rest of the World	Total
1960	2	39	11	0	46	2	100
1965	2	35	4	0	57	2	100
1970	3	46	15	6	26	4	100
1975	3	41	19	9	20	8	100
1980	3	46	13	10	20	8	100
1985	3	48	18	11	14	6	100
1990	2	52	9	15	16	7	100
1995	1	51	17	9	14	8	100

Source:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations. 1964. 1966. 1967. 1974. 1978. 1981. 1992. 1993. and 1996).
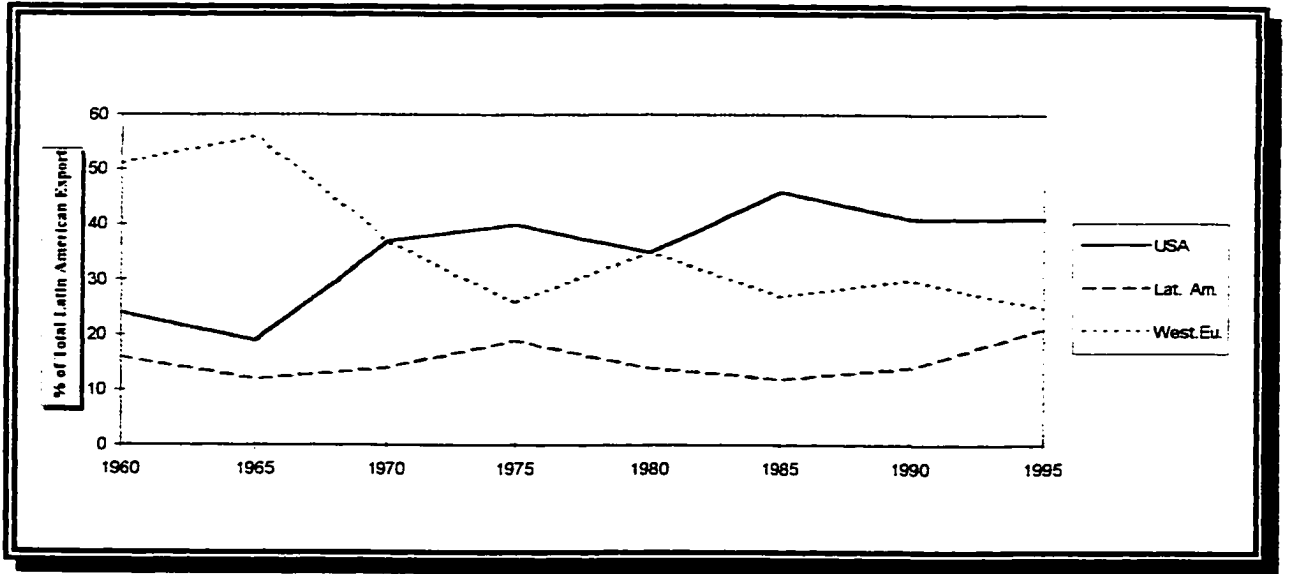
Source: Table 5.6

Figure 3

Latin American Exports toward World Regions
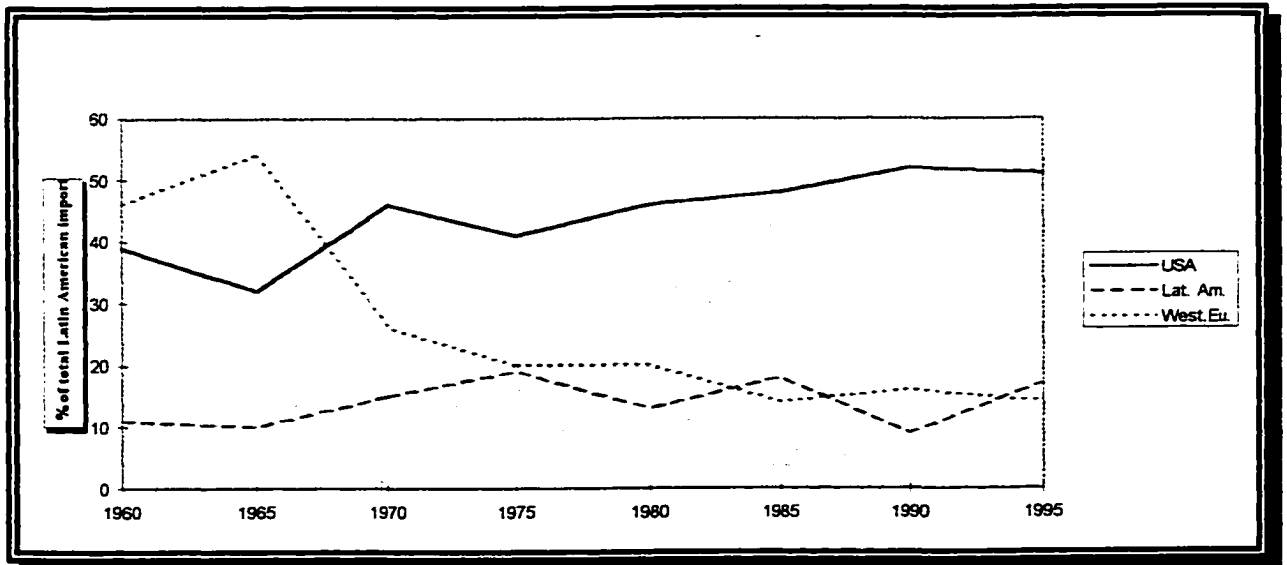
Source: Table 5.8

Figure 4

Latin American Imports from World Regions

The U.S. and Western Europe have a high significance and negative correlation as destinations for Latin American exports: with more exports going to the U.S., Western Europe would receive fewer products from Latin American nations. These two regions have mutually exclusive roles. The coefficient of correlation is -0.968 (see Table 5.9). Latin American links with Japan (6 percent), Canada (2 percent) and the rest of the world (5 percent) appear to have experienced no change during the period 1960-1995.

Table 5.9
Latin American International Trade:
Linear Correlations with World Regions

Regions	Canada	USA	Latin America	Western Europe	Japan	Rest of the World
Canada	1.000	-	-	-	-	-
USA	0.000	1.000	-	-	-	-
Latin America	0.181	0.397	1.000	-	-	-
Western Europe	-0.017	-0.968	-0.563	1.000	-	-
Japan	-0.530	0.336	-0.228	-0.275	1.000	-
Rest of the World	-0.407	-0435	-0.492	0.366	0.089	1.000

Source:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations, 1964, 1966, 1967, 1974, 1978, 1981, 1992, 1993, and 1996).

Political pressures appears to be most evident in the import sector. From 1985 to 1990, Nicaragua and Panama obtained most of their imports from the group of countries characterized as the "rest of the world." The main factor here was the set of political discrepancies between each of these nations and Washington.

Tables 5.10, 5.11, 5.12, and 5.13 show the results of applying the formula of coefficient of concentration in two complementary ways: based on countries and based on regions. The results for coefficient of trade concentration from Latin American countries to the U.S. in terms of exports in 1995 show that the countries with the highest values of concentration (%) were Mexico (81), Trinidad and Tobago (77), Venezuela (77), and the Dominican Republic (73). These data were influenced by the complementary nature of exports and the geographic proximity among countries. The factor is evident in the export of Venezuelan oil to the U.S., and the export of sugar from the Dominican Republic. All of these countries are as examples of geographic proximity in international trade.

On the other hand, countries with a low coefficient of concentration (%) for exports to the U.S. in 1995 were Paraguay (17), Uruguay (19), Argentina (22), and Bolivia (31). Here there is evidence of the geographic factor and also the fact that those countries could export on a more competitive basis to other markets closer to them, i.e., Brazil, Chile, and Peru. In both groups, countries with a high and a low coefficient of concentration of exports tended to maintain their respective numbers.

With regard to imports, countries with the highest percentage of coefficient of concentration in 1995 were the Dominican Republic (88), Mexico (82), Jamaica (81), and Guatemala (81). Again, the main factor appears to have been the complementary nature of imports, and geographic proximity, but note that these coefficients were higher than those

Table 5.10
Latin American International Trade
Coefficient of International Trade Concentration:
Exports to the United States
(%)

| Country	1960	1965	1970	1975	1980	1985	1990	1995
Argentina	20	19	16	12	13	28	22	22
Bolivia	5	19	38	44	45	17	30	31
Brazil	31	23	42	38	38	50	45	37
Chile	28	20	22	19	22	37	31	30
Colombia	76	64	55	48	43	52	62	57
Costa Rica	66	67	55	57	54	55	38	65
Dom. Rep.	36	30	92	77	77	86	79	73
Ecuador	78	65	56	56	57	84	75	63
El Salvador	29	34	27	39	52	49	46	57
Guatemala	27	28	41	36	41	55	57	53
Honduras	40	35	69	70	66	64	75	68
Jamaica	46	28	67	49	52	62	46	51
Mexico	38	38	81	78	78	78	82	81
Nicaragua	47	22	45	51	41	22	10	37
Panama	87	29	73	79	68	76	56	47
Paraguay	29	25	19	17	13	14	15	17
Peru	22	14	50	48	41	63	31	40
Trinidad and Tobago	15	14	73	88	84	82	83	77
Uruguay	15	36	14	10	18	29	19	19
Venezuela	55	41	64	66	5	58	32	77

Sources:

(a) Data:

United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations, 1964, 1966, 1967, 1974, 1978, 1981, 1992, 1993, and 1996).

(b) Calculations:

Based on formula:

$$c = \left[\frac{(\sqrt{x}) - \left(\sqrt{\frac{1}{N}}\right)}{1 - \left(\sqrt{\frac{1}{N}}\right)} \right]$$

Where: c = Coefficient of concentration; x = % of exports from country i to the U.S.;
N = Number of total trade partners of country i.

Table 5.11
Latin American International Trade
Coefficient of International Trade Concentration:
Imports from the United States
(%)

Country	1960	1965	1970	1975	1980	1985	1990	1995
Argentina	33	34	41	38	46	39	40	38
Bolivia	84	95	64	47	45	55	56	36
Brazil	57	60	51	44	44	55	47	50
Chile	57	68	52	63	58	54	52	50
Colombia	83	81	68	78	69	59	66	72
Costa Rica	90	88	59	61	68	40	83	79
Dom. Rep.	86	90	86	79	74	79	91	88
Ecuador	91	93	74	83	84	73	72	71
El Salvador	82	73	53	45	46	39	50	43
Guatemala	92	89	58	62	63	70	75	81
Honduras	92	86	62	55	57	62	68	59
Jamaica	35	74	57	40	59	57	75	81
Mexico	84	85	78	81	81	83	83	82
Nicaragua	92	89	63	50	36	12	19	50
Panama	80	69	54	29	29	15	21	17
Paraguay	28	34	25	19	30	26	38	39
Peru	69	68	50	63	84	63	62	64
Trinidad and Tobago	31	32	29	21	25	61	46	53
Uruguay	31	45	35	30	33	37	23	27
Venezuela	50	18	62	64	63	65	61	62

Sources:

(c) Data:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations, 1964, 1966, 1967, 1974, 1978, 1981, 1992, 1993, and 1996).

(d) Calculations:
Based on formula:

$$c = \left[\frac{(\sqrt[\imath]{x}) - \left(\sqrt[\imath]{\frac{1}{N}}\right)}{1 - \left(\sqrt[\imath]{\frac{1}{N}}\right)} \right]$$

Where: c = Coefficient of concentration; x = % of exports from country i to the U.S.:
N = Number of total trade partners of country i.

Table 5.12
Latin American International Trade
Coefficient of International Trade Concentration:
Regional Exports to the United States
(%)

Region	1960	1965	1970	1975	1980	1985	1990	1995
Mexico-Central América-Caribbean								
Average	43	32	62	62	61	63	57	61
Standard Deviation	21	14	20	18	15	19	23	14
Coefficient of Variation	48	43	32	29	25	30	41	23
Andean Countries								
Average	47	41	53	52	38	55	46	53
Standard Deviation	33	24	10	9	20	24	21	18
Coefficient of Variation	69	59	19	17	52	44	45	34
Southern Cone Countries and Brasil								
Average	24	27	21	19	19	30	24	23
Standard Deviation	7	9	13	11	13	17	15	12
Coefficient of Variation[1]	28	34	61	59	68	56	60	51

Notes:
1/ Coefficient of Variation: Expression in % of standard deviation taking the average as 100 %.
Countries (a) Mexico-Central America-Caribbean: Mexico, Guatemala. El Salvador. Honduras.
Nicaragua. Costa Rica. Panama, Haiti, Dominican Republic, Jamaica and Trinidad and Tobago: (b)
Andean Countries: Colombia. Ecuador. Peru. Bolivia and Venezuela: (c) Southern Cone countries and
Brasil: Argentina, Brasil. Chile. Paraguay and Uruguay.
Source:
Inter-American Development Bank. *Latin America after a decade of reforms* (Washington. D C: the
Johns Hopkins University Press. 1997).

Table 5.13
Latin American International Trade
Coefficient of International Trade Concentration:
Regional Imports from the United States
(%)

Region	1960	1965	1970	1975	1980	1985	1990	1995
Mexico-Central América-Caribbean								
Average	77	77	60	52	54	52	61	63
Standard Deviation	23	18	15	20	19	25	26	23
Coefficient of Variation	31	23	25	37	36	48	43	36
Andean Countries								
Average	76	71	64	67	69	63	63	61
Standard Deviation	16	31	9	14	16	7	6	14
Coefficient of Variation	21	44	14	21	24	10	9	24
Southern Cone Countries and Brasil								
Average	37	51	41	38	42	42	40	41
Standard Deviation	20	13	11	18	11	12	11	10
Coefficient of Variation[1]	55	26	28	49	27	29	28	23

Notes:
1/ Coefficient of Variation: Expression in % of standard deviation taking the average as 100 %.
Countries (a) Mexico-Central America-Caribbean: Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Haiti, Dominican Republic, Jamaica and Trinidad and Tobago; (b) Andean Countries: Colombia, Ecuador, Peru, Bolivia and Venezuela; (c) Southern Cone countries and Brasil: Argentina, Brasil, Chile, Paraguay and Uruguay.
Source:
Inter-American Development Bank. *Latin America after a decade of reforms* (Washington, D C: the Johns Hopkins University Press. 1997).

for exports. Countries with the lowest values for imports in 1995 (%) were Panama (17), Uruguay (27), Bolivia (36), and Argentina (38). Here, with the single exception of Panama, the main factor seems to have been geographic distance. In Panama, important factors were also the nature of imports, the political problems still present from the 1989 conflict, and Panamanian ties with some European countries.[142] Both groups, countries with high and with low coefficients of concentration of imports, tended to maintain their percentages.

When the coefficient of exports to the U.S. is considered in terms of regions (Tables 5.12 and 5.13), it is evident that the closer the region was to the U.S., the more it depended on this country as the "natural" market. Therefore, for 1995 and in terms of percent, Central America countries, Mexico and the Caribbean countries had a higher coefficient of export concentration (61) than did the Andean countries (53) or the Southern Cone and Brazil (23). One of the most important features of these two tables is that the major trend in forming a trading block with the U.S. was in reference to imports. Notice how Mexico, Central American nations and the Caribbean nations had very similar percents of import concentration for 1995 (63 and 61, respectively). Southern Cone countries and Brazil had 41 percent for 1995 (a low value but not as low as the coefficient of export for the same region).

---

[142] Panama was invaded in December 1989 by U.S. troops. According to official statements of the U.S. government, the main purpose of this operation was the elimination of the illegal narcotics trade. The head of Panama, Antonio Noriega was involved in this situation. In addition Germany, Belgium, Italy and France have been important and specific trade partners with Panama, especially in terms of technological products. Panama needs these products in order to keep its economic infrastructure going. See H. Wiarda and H. Kline, *Latin American Politics and Development* (Boulder, CO: Westview Press, 1990), pp. 55-81, 551-62; N. Lechner (ed.), *Estado y política en América Latina* (Mexico, D.F., México: Siglo XXI Publishers, 1987), pp. 60-87, 133-45, 272-300; J. Knippers, *Latin America, Its Problms and Its Promise* (Boulder, CO: Westview Press, 1991), pp. 141-57, 368-85; and K. Buckley, *Panama, the Whole Story* (New York: Simon and Schuster, 1991), pp. 37-55, 102-104, 255-66.

Concerning Latin American countries' contribution to the total export capacity of this region, it is quite obvious that the large and middle-sized economies had more participation. For 1995 these contributions were: Argentina with 10 percent, Brazil with 21 percent, Mexico with 30 percent, Venezuela with 10 percent, and Chile with 7 percent. What is more important from these data is the evidence that Mexico was the most important country, having an expanding share in the total Latin American exports (from 25 % in 1960 to 30 % in 1995). Meanwhile, Argentina, Brazil and other nations appear to have had no dramatic changes in their export share (see Table 5.14 and Figures 5, 6, and 7). Factors such as the formation of NAFTA, geographic location, and oil production seem to have had anotable influence on this Mexican condition.[143]

Taking into consideration export per capita composition, Latin America as a region seems to have had a constant and widening effort. Export per capita grew from US$ 332 in 1985 to US$ 494 in 1995 (see Table 5.15). It is important to keep in mind the economic adjustment plans Latin American countries had been implementing since the beginning of the eighties. Simply put, Latin American countries had the tendency to expand their export capacity in per capita terms. Nevertheless, note that the countries with the highest value in per capita export capacity were small economies and some medium economies: Panama with US$ 2234, Trinidad and Tobago with US$ 1956, Chile with US$ 1140, Jamaica with US$ 1119, and Venezuela with US$ 1088. This was not true of Haiti, however, with a per capita export value at US $66.

---

[143] It is also expected that Mexican exports can substitute to some extent for exports from the Central American and Caribbean nations. See R. Barnet and J. Cavanagh, *Global Dreams* (New York: Touchstone Publishers, 1994), pp. 253-54, 350-57, 402.

Table 5.14
Exports from Each Country as % Contribution
of Total Latin American International Trade

Country	1970	1975	1980	1985	1990	1995
Argentina	10	8	9	8	9	9
Bolivia	2	2	1	1	1	1
Brazil	19	21	22	20	21	21
Chile	6	5	6	5	6	7
Colombia	5	4	5	5	5	5
Costa Rica	2	1	1	1	1	1
Dom. Rep.	1	2	1	1	1	1
Ecuador	1	2	2	2	2	2
El Salvador	1	2	1	1	1	1
Guatemala	1	2	2	1	1	1
Guyana	1	1	0	0	0	0
Haiti	0	0	0	0	0	0
Honduras	1	1	1	1	1	0
Jamaica	2	2	1	1	1	1
Mexico	25	25	29	31	29	30
Nicaragua	1	1	1	0	0	0
Panama	1	0	0	3	3	2
Paraguay	0	0	1	1	1	1
Peru	4	4	4	4	3	3
Trinidad and Tobago	3	4	3	2	1	1
Uruguay	1	1	1	1	1	1
Venezuela	13	12	9	11	11	10
Totals	100	100	100	100	100	100

Source:
United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations. 1964. 1966. 1967. 1974. 1978. 1981. 1992. 1993. and 1996); and Inter American Development Bank. *Economic and Social Progress in Latin America 1996 Report* (Washington. D C: IDB. 1996).
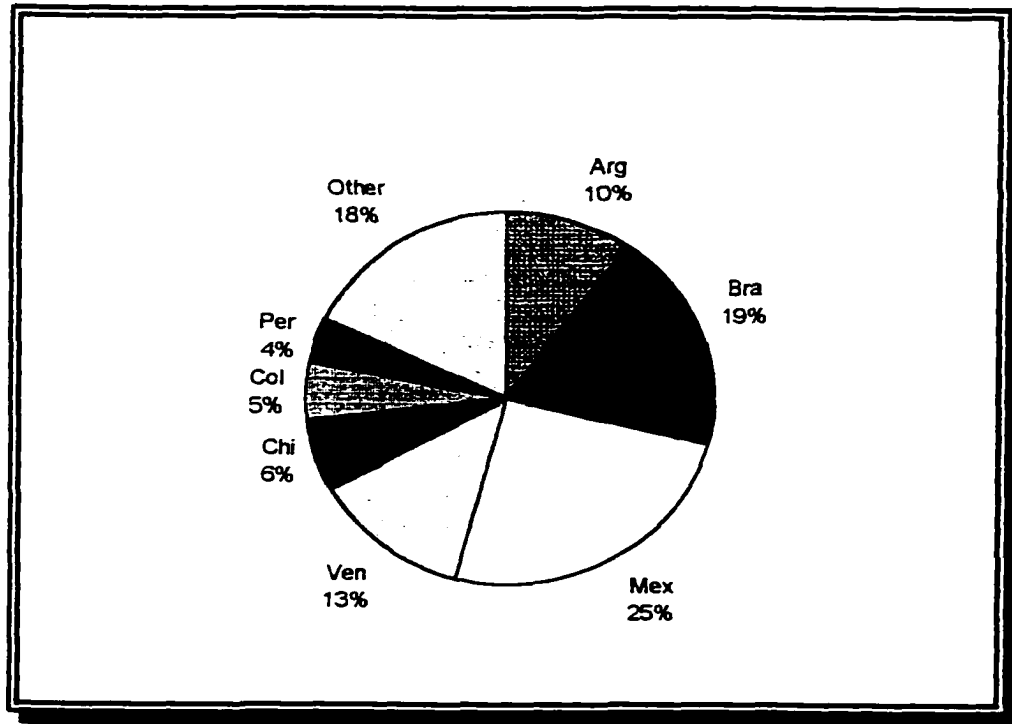
Source: Table 5.14

Figure 5

Latin American Export Shares 1970
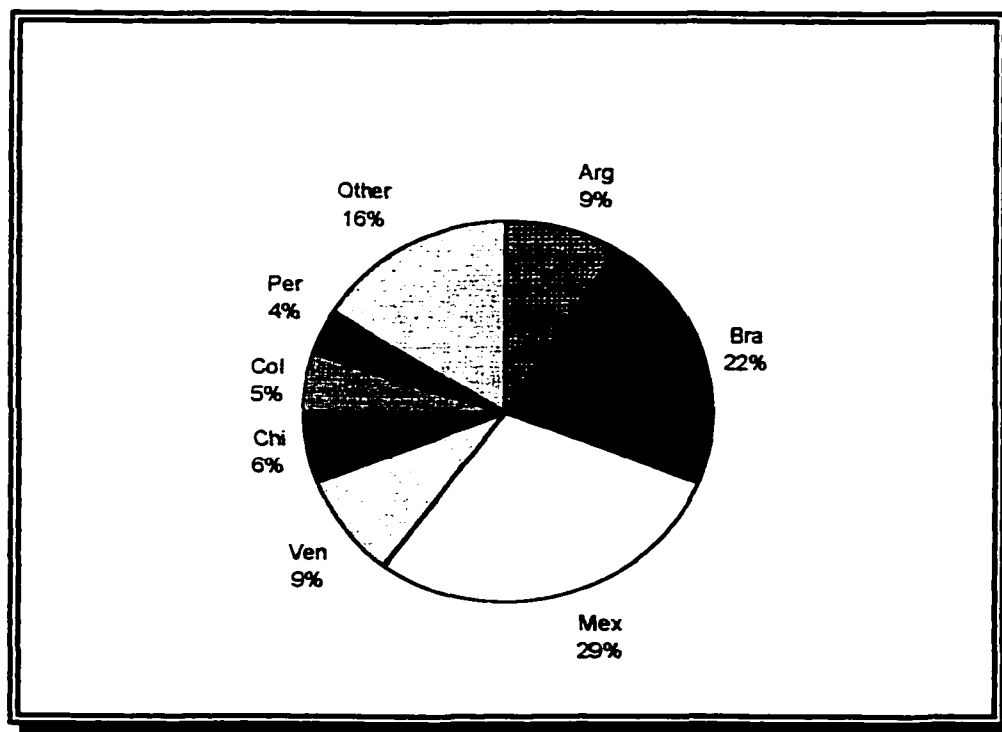
Figure 6

Latin American Export Shares 1980
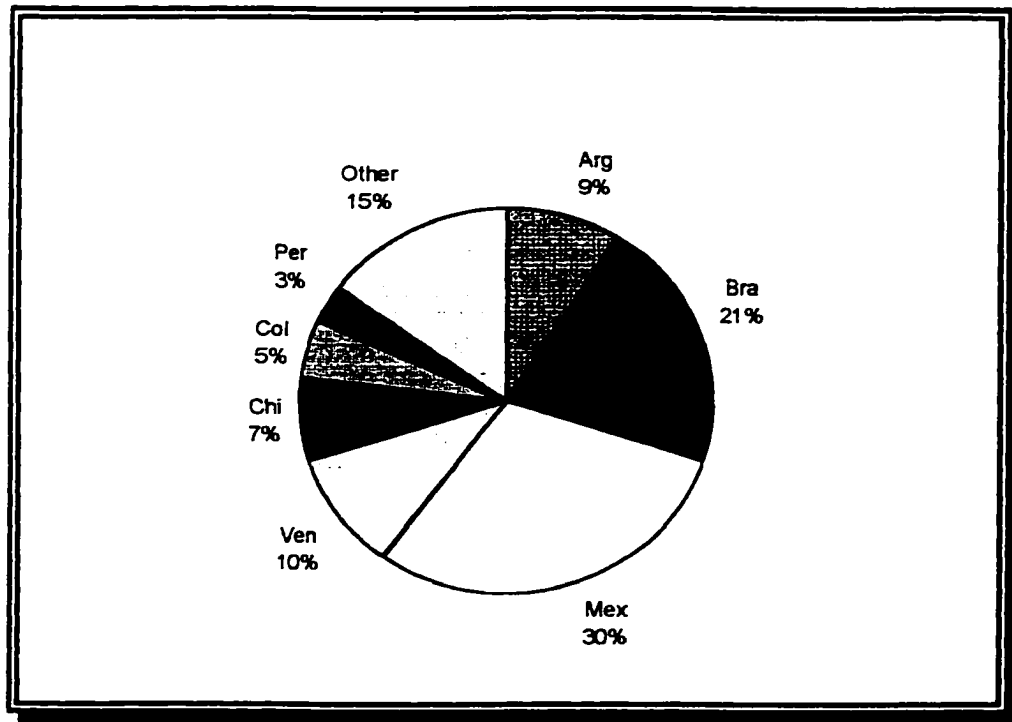
Source: Table 5.14

Figure 7

Latin American Export Shares 1995

Table 5.15
Latin American Exports per Capita
(1990 US$)

Country	1985	1990	1995
Argentina	333	458	608
Bolivia	117	149	206
Brazil	189	236	295
Chile	550	781	1140
Colombia	211	269	337
Costa Rica	444	647	899
Dom. Rep.	194	255	286
Ecuador	293	317	408
El Salvador	185	188	299
Guatemala	142	170	189
Guyana	361	315	570
Haiti	51	46	66
Honduras	223	212	194
Jamaica	792	916	1119
Mexico	535	601	733
Nicaragua	78	107	119
Panama	1874	1872	2234
Paraguay	258	440	691
Peru	242	193	262
Trinidad and Tobago	1730	1852	1956
Uruguay	574	698	808
Venezuela	848	973	1088
Latin America	332	395	494

Source:
Inter American Development Bank. *Economic and Social Progress in Latin America 1996 Report* (Washington. D C: IDB. 1996).

Another important feature is the significance of exports to the GNP for each country

(see Table 5.16 and Figure 8). Notice that almost all Latin American countries had expanded

their export capacity, with the exception of Nicaragua in 1985 and 1995. This country was

notable for having serious political problems during the eighties, mainly due to the

Sandinista administration's position on domestic and international political issues.

The more open economies in the region regarding exports as percent of GNP in 1995

were Guyana (78), Jamaica (65), Panama (54), Costa Rica (42), Paraguay (42), and Trinidad

and Tobago (43). As expected, in the big regional economies - Argentina, and Brazil -

$$y = 5E\text{-}06x^6 - 0.0004x^5 + 0.0104x^4 - 0.1415x^3 + 0.9499x^2 - 3.0796x + 14.119$$

$$R^2 = 0.8655$$
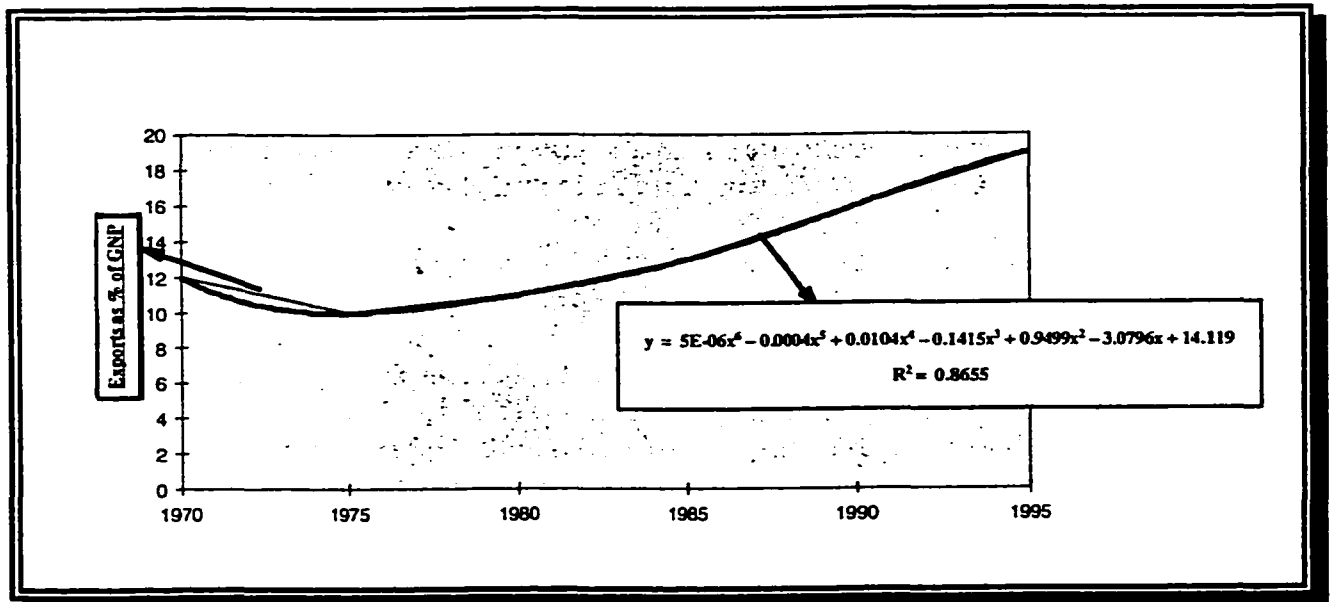
Source: Table 5.16

Figure 8

Latin American Exports as % of GNP

Table 5.16
Latin American International Trade
Exports from each Country as % of Gross National Product

| Country	1970	1975	1980	1985	1990	1995
Argentina	12	8	6	10	13	12
Bolivia	18	18	14	13	21	20
Brazil	7	6	6	11	11	11
Chile	14	22	33	32	37	33
Colombia	16	14	14	14	19	19
Costa Rica	33	27	26	28	39	42
Dom. Rep.	16	25	35	34	27	30
Ecuador	15	28	23	27	32	30
El Salvador	19	17	24	20	20	25
Guatemala	19	23	24	17	18	20
Guyana	62	62	73	82	83	78
Haiti	22	16	18	18	20	28
Honduras	27	26	25	22	20	27
Jamaica	41	34	42	58	63	65
Mexico	8	8	11	17	20	26
Nicaragua	29	20	21	15	22	19
Panama	37	31	38	35	44	54
Paraguay	14	18	17	20	36	42
Peru	18	17	23	21	22	14
Trinidad and Tobago	41	25	21	34	45	43
Uruguay	14	13	15	25	29	22
Venezuela	27	31	22	21	27	35
Totals	12	10	11	13	16	19

Source:

United Nations Organization. *International Trade Statistics Yearbook* (New York: United Nations, 1964, 1966, 1967, 1974, 1978, 1981, 1992, 1993, and 1996): and Inter American Development Bank. *Economic and Social Progress in Latin America 1996 Report* (Washington, D C: IDB. 1996).

Figure 8 shows the trend in the variable of the weight of Latin American exports on

its GNP. It demonstrates how much exports in the region as a whole have increased when

compared to total regional production, from 12 percent in 1960 to 19 percent in 1995. The

figure also shows the mathematical model for this variable's trend. This model is based only

on the variables of time and exports as percent of GNP, consequently it is a model reflecting

effects rather than causality. Its coefficient of determination (R^2) has a moderate value

(0.8655).

$$y = 5 \text{ E-06} x^6 - 0.0004 x^5 + 0.0104 x^4 - 0.1415 x^3 + 0.9499 x^2 - 3.0796 x + 14.119$$

$$R^2 = 0.8655$$

Where

y = Latin Latin American percent share of its exports on its total GNP,
x = years.
R^2 = coefficient of determination.

Three main results appear to be important from this analysis of network models,

proportions, and coefficients of trade concentration. First, the evidence of the

globalization/segregation worldwide system; second, the need for a process of economic

integration, especially for the small economies of the region; and third, the influence of a set

of factors that can explain the results of trade among countries, such as geographical

distance, openness of economies, competitive action from other countries, and structure of

exports/imports and its complementary nature in international trade.

When we talk about the processes of globalization we are mainly considering sectors

of world communications and economic factors, especially the financial and the international

trade systems. For example, under conditions at the end of 1998 and the beginning of 1999,

several events revealed an increasing pace in the globalization process among more developed countries. One of these events was the discussion, during the first half of 1999, of the Multilateral Agreement on Investment (MAI). This was an attempt at financial integration that had been developed by the countries of the Organization of Economic Cooperation and Development (OECD). Twenty-one of the most developed nations belong to this association.[144] Another example was the creation of the Euro, beginning in 1999, as the common currency of West European countries. These events took place among the most economically advanced nations.[145]

In terms of communications, the phenomenon of globalization was an unquestionable trend which has reinforced its position since the use of short-wave radio transmissions to the most developed Internet connections. These technological factors influenced aspects of the global economy, basically trade and financial transactions. They also affected cultural expansion from the more developed societies.

However, while studying aspects of world economic trade and finance, it is also possible to see a pattern of global segregation. Basically, while the more powerful countries were increasing their integrated links, small economies in developing countries were left behind. Evidence for this can be derived from this study, as has already been shown in the case of Latin American participation in the international trade system. In 1960, all 22 Latin

---

[144] The first draft of the Multilateral Agreement on Investment (MAI) was finished in 1998. One of the most notable aspects of this proposal was the desire that all OECD countries would have among them the status of most-favored-nation in terms of international economic links. In this respect, the agreement extended the right of national treatment to all foreign capital within each jurisdiction. This would imply unrestricted right to the resources of all signatories. See T. Clarke, *Multilateral Agreement on Investment* (Toronto, Canada: Staddard, 1997), pp. 43-46.

[145] The twenty-nine members of the OECD are home to 477 of the Global Fortune Magazine 500 Corporations. See T. Clarke, *Multilateral Agreement on Investment* (Toronto, Canada: Staddard, 1997), p. 48.

American countries, including the three main economies of the region (Argentina, Brazil and

Mexico) had a share of 8 percent; in 1995, the same 22 countries had a share of only 4

percent (see Table 5.4 and Figs. 1 and 2).

There is evidence that Latin America as a whole increased its exports during the same

period in per capita terms and as share of the regional GNP (see Tables 5.15, 5.16, and Fig.

8), but it was the more developed countries (MNCs) which increased their share in the

international trade system from 66 to 74 percent (see Table 5.4). The process of segregation

in the international trade arena was reinforced by the fact that in some areas of production,

MDCs could substitute their exports from the developing countries, such as in the case of

sugar.[146] This process of global segregation was also evident in the political and social

spheres.[147]

Rigorously, in order to accept or reject the null (or the research) hypothesis

concerning globalization, that is to say, the degree to which Latin American countries have

or have not integrated themselves into the international trade system, this study had the

coefficient of correlation and the polynomial model of Latin American nations' participation

in the international market. Their results (based on Table 5.4) were:

---

[146] For a discussion of this topic, see A. Fuentes and J. Villanueva, *Economía mundial e integración de América Latina* (Buenos Aires, Argentina: Editorial Tesis, 1989), pp. 85-88, 174-79, 190-97; O. Castro, *Estrategia para incrementar el comercio intracentroamericano* (Washington, DC: Banco Interamericano de Desarrollo, 1988), pp. 6-14; and J. Villanueva, *Perspectivas del desarrollo industrial latinoamericano* (Buenos Aires, Argentina: INTAL, 1979), pp. 24-31.

[147] Consideration of topics concerning social and political factors is beyond the scope of this study. Nevertheless, one can see how under conditions at the end of the 20th century, the fact that the guerrilla forces won political power in Congo was not important to the more industrialized countries, nor were the atrocities in Rwanda and Burundi in 1994. Previously, during the Cold War, more attention was paid to the conditions of the developing countries since poverty and social tragedies were seen as promoters of social and political change, even revolutionary transformations leading toward socialist or Communist regimes. In many cases, for this reason, efforts were made to provide aid and also to repress political disputes within nations. See S. Ambrose, *Rise to Globalism: American Foreign Policy since 1938* (New York: Penguin Books, 1988), pp. 132-43, 154-82, 283-98.

a) Exports from Latin American countries 1960-1995:

a.1.) Linear Regression model

$$y = 7.6785 - 0.5119 x$$

a.2.) Coefficient of correlation

$$R = -0.8706$$

b) Imports from Latin American countries 1960-1995:

b.1.) Linear Regression model

$$y = 7.4285 - 0.5283 x$$

b.2.) Coefficient of correlation

$$R = -0.8945$$

c) Coefficient of determination from the polynomial model concerning exports of Latin America into the international trade system:

$$R^2 = 0.8105$$

The coefficient of correlation for exports and imports of Latin American countries both presented a negative value and have statistical significance (less than 5 percent margin of error). It is important to realize the negative slope of both regressional models as well. In addition, the coefficient of determination with respect to the polynomial model of the Latin American exports into the international trade system also shows statistical significance with less than 5 percent of error.

Based on these results and their statistical significance, it can be concluded that Latin America as a region was experiencing a process of segregation from the international trade system. On the other hand, the evidence suggests that a process of globalization, more integration, was taking place among the more developed countries. To prove this claim, and

based on data presented in Table 4.4, the same regression and correlation tests applied to

Latin American international trade participation were applied to exports and imports from

the MDCs. The results were:

a) Exports from the more developed countries (MDCs) 1960-1995:

a.1.) Linear Regression model

$$y = 66.071 + 0.7619 x$$

a.2.) Coefficient of correlation

$$R = 0.8229$$

b) Imports from the more developed countries (MDCs) 1960-1995:

b.1.) Linear Regression model

$$y = 65.8214 + 0.8754 x$$

b.2.) Coefficient of correlation

$$R = 0.8785$$

Both the coefficient of correlation of exports and imports from MDCs have statistical

significance (less than 5 percent margin of error). Also significant is the positive slope

shown in both regression models. Clearly the evidence shows that a process of more

globalization, more integration and more concentration of the international trade system was

taking place among MDCs.

A second factor was the requirement for economic integration, a need which was

most evident in the case of the region's small economies. Here it is important to underline

the general advantages of economic integration:[148] (a) it increases the size of domestic

---

[148] To achieve these impacts, this study considers the classic five sequential stages of economic integration: (a) preferential trading arrangement with reduction of intra-group tariffs; (b) free-trade area implying removal of intra-group tariffs; (c) customs union with common external tariff; (d) common market which is characterized by intra-group capital and labor mobility; and (e) economic union when common economic policies and

markets; (b) it brings the possibility of implementing production processes of economies of scale; (c) it gives less developed countries more power in international decisions; (d) it creates regional areas with more macroecomic coordination; and (e) it provides reduced external vulnerability for countries that form the economic pact.[149]

One of the problems in carrying out economic integration for the small economies of the area is the current scenario regarding the more competitive position in international trade and the nature of their exports, which is not exactly complementary. However, the formation of trading blocks by some Latin American nations such as MERCOSUR during the nineties (a group formed by Argentina, Brazil, Paraguay, and Uruguay) has renovated/revived initiatives to extend intraregional connections with other countries or trade agreements, such as the Andean Pact and the Central American Common Market.

The third result of this analysis is the group effect of several variables on international trade among countries. Some of these variables favor the trade links, such as historical and social factors, openness of economies, size of economies and the complementary structure of the export-import links. These factors can have direct and positive effects. However, there are elements which, in turn, will act against the formation or reinforced levels of international trade between two countries. These factors are geographical distance and the competitive/substitutive action of other countries.

---

common currency take place. See B. Yarbrough and R. Yarbrough, *The World Economy: Trade and Finance* (Chicago: Dryden Press, 1992), pp. 376-93.

[149] A concrete example of less vulnerability in economic aspects is the MERCOSUR position facing the international financial turmoil at the end of 1998. The MERCOSUR countries (Argentina, Brazil, Paraguay, and Uruguay) will show less vulnerability as they have more intraregional trade. Another important factor is the degree to which Brazil, the main economic power of the region, is affected by external circumstances.

These "gravitational" elements of trade were evident in the case of the Latin American nations.[150] A similarity with "gravitational" field is identifiable, for example, in the case of MERCOSUR. In this respect, Brazil and Argentina were the "central" or "dominant" poles of attraction, especially for Uruguay and Paraguay, mainly due to the size of their economies, the structure of complementary exports, and geographical nearness. Another example of this concept of "gravitational" factor was the role of the United States. Degree of openness and structure of the export-import links appear to have been the main factors which explain strong trade connections among the U.S., Mexico, the Central American countries and the Caribbean countries. These elements also would explain the lower degree of trade between the U.S. and the Southern Cone countries. Historical and social factors are crucial in understanding the lack of trade relations between the U.S. and Cuba, and also in explaining why Nicaragua and Panama were having more imports from the "rest of the world" than from Latin America or the U.S.

---

[150] The term "gravitational" is derived from the analogy of the fields of gravitational influence in physics. The theory of universal gravitation was formulated by Newton, and constitutes part of classical physics. It states that any two objects attract each other with a force that varies directly as the product of their masses and inversely as the square of the distance between them.

LATIN AMERICAN EXPORTS AND ECONOMIC GROWTH:
RESULTS AND DISCUSSION

6.1. Research Problem and Research Statements

The general statement of the research problem established whether or not it is possible to say that under one of the main assumptions of globalization - increased integration - Latin American economies did or did not become more integrated with their main trade partners in the international economic field during the period 1960-95. Chapter 5 was devoted to that claim; it dealt with the network analysis models and their complementary statistical measures. This chapter addresses the first element of the particular statement established in the research problem, namely: What have been the main repercussions of Latin American exports on economic growth of those countries during the period 1960-1995? As was presented in the literature review, especially in the historical summary of Latin American economies 1960-1995, and in the foundations for economic adjustment, exports were the central means by which Latin American nations were trying to achieve their main macroeconomic goals: a) price stability; b) economic growth; c) low levels of unemployment; and d) positive levels in the balance of trade.

In reference to the research statements, this chapter deals with the following hypothesis: exports from Latin American countries during the period 1960-1995 were the main cause of the economic growth of those nations. This chapter has three levels of

analysis: (a) Latin America as a whole region; (b) Latin American countries grouped in terms of size of economies, structure of exports, regions and positions; and (c) Latin American countries as individuals. A concrete link in terms of grouping Latin American countries, between this and the previous chapter is that semiperipheral and peripheral countries are studied as particular sub-sets to establish the impact of economic variables on economic growth. Finally and regarding the particular/alternative research statements, this part studies the claim that as exports from Latin American countries increased in the period 1960-1995, the oil exporting nations of the region - Mexico, Venezuela, Ecuador, and Trinidad and Tobago - were experiencing economic growth.

6.2. Basic Model and Indicators

The fundamental assumption in this chapter is that with the increasing role of the export sector, economic growth increased within the economies of Latin American nations. Some studies have demonstrated that developing countries with a high level of exports could achieve higher levels of economic growth. In addition, it has been claimed that the role of exports has several other beneficial impacts other than economic growth alone.[151]

A brief summary of the "trade optimist" arguments indicate that trade liberalization[152] generates rapid export and economic growth mainly because: (a) it promotes competition,

---

[151] B. Yarbrough and R. Yarbrough, *The World Economy: Trade and Finance* (Chicago: Dryden Press, 1999)

[152] Trade liberalization is understood in the context of this chapter as a set of policies relevant to export promotion, currency devaluation, and removal of trade restrictions and some governmental controls. See D. Lal and S. Rajapatirana, "Foreign trade regimes and economic growth in developing countries", *World Bank Research Observer 2*, no. 2 (July 1987); A. Maizels, *Exports and Economic Growth of Developing Countries* (London: Cambridge University Press, 1988); and M. Todaro, *Economic Development in the Third World* (New York: Longman, 1995).

improves resource allocation and economies of scale in areas where less developed countries (LDCs) have a comparative advantage, consequently costs of production are lowered; (b) it generates pressures for increased efficiencies, product improvement, and technical change, thus raising factor productivity and further lowering costs of production; (c) it accelerates overall economic growth, which raises profits and promotes greater saving and investment and thus furthers growth; and (d) it attracts foreign capital and expertise, which are in scarce supply in LDCs.[153] On the other hand, "trade pessimist" arguments focus their attention on three negative elements: (a) limited growth of world demand for primary exports; (b) secular deterioration in the terms of trade for primary producing nations; and (c) rise of the "new protectionism" against the exports of LDC manufactured and agricultural goods. Specifically, trade pessimists assert that LDC exports grow slowly for four reasons: (a) a shift in developed countries from low technology, material-intensive goods to high-technology, skill-intensive products, which decreases the demand for Third World raw materials; (b) increased efficiency in industrial uses of raw materials and the substitution of synthetics for natural raw materials such as rubber and cotton; (c) low income elasticity of demand for primary products and simple manufactured goods; and (d) the rising productivity of agriculture in developed countries and their increasing protectionism for agriculture and labor-intensive developed-country industries.[154]

---

[153] See C. Eicher and L. Witt, *Agriculture in Economic Development* (New York: McGraw-Hill, 1987), pp. 311-22; and M. Todaro, *Economic Development in the Third World* (New York: Longman, 1995), pp. 439-53.

[154] See A. Krueger, *Trade and Employment in Developing Countries* (Chicago: University of Chicago Press, 1987), pp. 54-67.

Empirical evidence to evaluate the pessimistic and optimistic approaches in relation to trade shows that when the world economy was expanding rapidly, as was the case during the years 1960 to 1973, the more open LDCs appeared to perform better in both aggregate exports and economic growth than closed-economy nations. However, when the world economy slowed down, particularly during the years 1973 to 1977, the more open LDC economies, with the exception of the newly industrialized countries in Southeast Asia, had a more difficult time with exports and economic growth.[155] Singer and Gray argue that when world economic conditions were more unfavorable, such as during the period 1977 to 1983, high growth rates of export earning occurred only when external demand was strong.[156]

In any case, a model studied by Gershon Feder was the essential base for obtaining the results in this chapter.[157] This model had three stages in its development. The first was the classical approach, according to which economic growth results from the interaction of two economic elements: capital and labor.[158] The second stage included exports and the openness of economies in addition to capital and labor factors.[159] Finally, the third stage included all the above mentioned elements plus the set of dummy variables this study is

------

[155] See G. Helleiner, *International Trade and Economic Development* (Harmondsworth, England: Penguin, 1990); and F. Stewart, *Theory and Reality in Development* (London: Mcmillan, 1986), pp. 125-32, 143-54.

[156] See H. Singer and P. Gray, "Trade policy and growth of developing countries," *World Development* 16, no. 3 (March 1988): 395-403.

[157] G. Feder, "On exports and economic growth," *Journal of Development Economics* 12 (1982) (New York: North-Holland Publishing Company): 59-73.

[158] H. Chereny, *et al.*, "A uniform analysis of development patterns," *Economic Development Report no. 148*. July 1980 (Cambridge MA: Harvard University Press).

[159] See Feder, "On exports and economic growth," *Journal of Development Economics* 12 (1982) (New York: North-Holland Publishing Company): p. 64.

adding: (a) structure of exports - oil, manufacturing, and agriculture/mining; (b) Latin American regions - Mexico/Central America/Caribbean, Andean, and Southern Cone; (c) positions - semiperipheral and peripheral countries; and (d) size of economies - large, medium, and small. As mentioned above, in addition to these groups of countries, this chapter studies Feder's model on the Latin American region as a whole, and on the individual countries.

All elements from this multiple regression model are studied during four periods of time: 1960-73, 1974-82, 1983-90, and 1991-95. During each of these periods, Latin American countries faced different international economic conditions. They were alluded to in the section about the economic history of Latin America 1960-1995. A summary of these international circumstances is presented in Table 6.1.

Regarding the groups of Latin American countries, the dummy variables were studied in two different ways. First they were considered alone within the macroeconomic model. Second, all the dummy variables together were seen as a complete set to establish a more integrated interaction, thus arriving at more representative results. Specific countries which formed different classifications regarding dummy variables are presented in each table as a reference. The model used to establish whether or not exports were significant elements behind economic growth in Latin America is:[160]

---

[160] Based on a macroecnomic multiple regression model from Gershon Feder. See G. Feder, "On exports and economic growth," *Journal of Development Economics* 12 (1982): 59-73.

Table 6.1
Multiple Regression Analysis:
General Characterization of the Four Periods of Time under Study

Sub period	Latin American Economic Characteristics			International Scenario
	Economic Growth	**Inflation**	**Other**	
1960/73	moderate and high	low	- Agricultural exports - Beginning of intra-regional trade agreements	- Bretton Woods institutions - Stability in the international trade and financial systems - Beginning of flexible exchange rates models (1973) - No more US$/gold standard (1971)
1974/82	moderate and high	low	- Generation of external debt	- Increases in oil prices (1973, 1979) - High international bank liquidity
1983/90	low	high	- Economic adjustment plans - More flexible exchange rates models - Promotion of export leading policies	- Increase in the US interest rate - Strong US dollar until 1985 - From 1985 less strong US dollar - Reductions of financial loans to Latin America
1991/95	moderate and high	low	- Economic adjustment plans - Promotion of exports - Reinforcement of intrarregional trade agreements	- Return of capital flows to Latin America - From 1990 to 1991 economic recession in the more developed countries - From 1992 economic expansion in the US and most of the Western European nations

Source:
E. Cardoso. and A. Helwege. *Latin America's economy* (Cambridge. MA: MIT Press. 1994), Economic Commission for Latin America and the Caribbean. *Latin America: the economic experience of the last 15 Years -1980-1995* (Santiago. Chile: CEPAL. 1996). Inter-American Development Bank. *Economic and social progress in Latin America 1996 report* (Washington D C: IDB. 1996). Jackson. J. *The world trading system* (Cambridge. MA: MIT Press. 1994). T. Walther. *The world economy* (New York: John Wiley & Sons. Inc. 1997).

$$\alpha GNP = a\ (\alpha L) + b\ (\alpha I) + c\ ((\alpha Xrg) * (X/GNP)) + Svdv$$

Where:

αGNP	=	rate of annual growth of gross national product
αL	=	rate of annual growth of labor force
αI	=	rate of annual growth of investments
αXrg	=	rate of annual growth of exports
X/GNP	=	the percent of export over the gross national product
Svdv	=	specific variables presented as dummy variables.

6.3. Results and Discussion

Tables 6.2 to 6.5 present results more on an individual basis regarding each dummy variable. A more complete discussion of data obtained from statistical procedures is presented in Tables 6.6, 6.7 and 6.8 where all the dummy variables are considered simultaneously.

6.3.1. Latin America as a Region

When the model was applied to aggregate data for the entire region during the whole period 1960-1995, it was evident that the two most important macroeconomic variables were labor and investment. They appear to have had a high level of significance, less than 1 percent margin of error, notwithstanding that the coefficient of determination was low - only 27 percent - and therefore the model only explained 27 percent of the behavior of the dependent variable. The F coefficient shows high statistical significance of the model with a value of 98.118 (see Table 6.2).

Table 6.2
Macroeconomic Analysis: Results Considering All Latin American Countries
for Period 1960-1995

Characteristic	Period 1960-1995
Intercept	0.008
Labor	1.224**
Investments	0.132**
Exports (Exp/GNP)	0.002
R^2	0.271
F	98.118**
No. of Observations	36

Notes:
R^2 = Coefficient of determination: F = Coefficient of Fisher. from ANOVA.
* = When coefficient has statistical significance at = 0.05
** = When coefficient has statistical significance at = 0.01
No. of observations: years.

From Table 6.3 we can see that again labor and investment were important variables for the Latin American region. In this case, region 1 (Mexico / Central America / Caribbean countries) shows a significant statistical economic growth during the period 1960-1995. This is explained by two main factors: (a) the United States was the "natural" market for the area, with a huge internal market;[161] and (b) the Caribbean Basin Initiative, which began in 1984, was a program designed to encourage exports from this region to the United States market. Also in Table 6.3 the seventies appear as a decade of strong economic growth in the region, more than the economic growth experienced during the sixties.

---

[161] By the year 2,000, the United States population was 268 million, which is about 53 percent of the total Latin American population. In addition and regarding internal market demand in the United States, it is important to take into account that these 268 million constitute 4 percent of the world's population with 22 percent of the worldwide wealth. The internal demand in the United States accounts for almost 68 percent of the "driven force" behind the U.S. trend of economic growth from 1991 to the present. See R. Gwynne and C. Kay, eds., *Latin America Transformed: Globalization and Modernity* (London: Arnold Publs. 1999), pp. 98-120, 156-59; D. Singer, *Whose Millennium?* (New York: Monthly Review Press, 1999), pp. 184-86; and M. Porter, *The Competitive Advantage of Nations* (New York: The Free Press, 1998), pp. 277-84, 543-46, and 719-21.

Table 6.3
Macroeconomic Analysis: Results Considering all Latin American Countries
Size of Economies, Regions, and Structure of Exports
1960-1995

Characteristic	Period 1960-1995
Intercept	0.826
Labor	0.987**
Investments	0.122**
Exports (Exp/GNP)	0.003
X1	1.118
X2	0.435
R1	0.757*
R2	0.788
S1	0.222
S2	0.092
1960's	0.779
1970's	1.264**
1980's	-1.086*
R^2	0.318
F	30.395**
No. of Observations	36

Notes:
X1 = manufacturing exports:
X2 = oil exports:
R1= Central American. Caribbean countries and Mexico:
R2 = Andean countries:
S1 = large economies:
S2 = medium economies:
1960s. 1970s. 1980s = decade of sixties. seventies and eighties. respectively.
R^2 = Coefficient of determination: F = Coefficient of Fisher. from ANOVA.
* = When coefficient has statistical significance at = 0.05
** = When coefficient has statistical significance at = 0.01
No. of observations: years.

Table 6.4 is presented only as an illustration rather than a specific statistical result, because of the limited number of observations, and the problems that this feature implies with the number of degrees of freedom. In the table, we can see how the influence of labor, investments and exports developed during each decade. Again, the general trend is that labor and investment were important, even though labor appears to lack statistical significance during the nineties.

Table 6.4
Macroeconomic Analysis: Results Considering All Latin American Countries and Decades 1960-1995

Characteristic	1960s	1970s	1980s	1990s
Intercept	1.292	0.790	0.789	2.913
Labor	0.856**	1.430**	1.006**	0.194
Investments	0.131**	0.088**	0.162**	0.102**
Exports (Exp/GNP)	0.001	0.001	0.001	0.001*
R^2	0.342	0.153	0.299	0.269
F	37.482**	13.068**	30.839**	15.701**
No. of Observations	11	10	10	5

Notes:
R^2 = Coefficient of determination: F = Coefficient of Fisher. from ANOVA.
* = When coefficient has statistical significance at = 0.05
** = When coefficient has statistical significance at = 0.01
No. of observations: years.

6.3.2. Groups of Latin American Countries

6.3.2.1. Considering size of economies

According to Table 6.5, the variable regarding labor shows statistical significance in two periods, 1960-73 and 1974-82. Investments or capital factors always appear as a significant variable at 1 percent margin of error. Another important point is that during all the periods except 1991-95, exports were significant factors for economic growth. When

Table 6.5
Macroeconomic Analysis: Results Considering Size of Economies

Characteristic	Periods			
	1960/73	1974/82	1983/90	1991/95
Labor	0.959**	1.584**	0.776	-0.226
Investments	0.121**	0.120**	0.137**	0.096**
Exports (Exp/GNP)	0.003**	0.002**	0.002**	0.009
S1	2.216**	-0.426	0.091	2.054*
S2	0.866	-1.558	0.479	3.846**
S3	0.987	-0.908	-1.038	2.775**
R^2	0.328	0.277	0.340	0.326
F	24.660**	12.285**	14.616**	8.385**
No. of Observations	308	198	176	110

Notes:

S1 = Big economies: Argentina. Brazil and Mexico:

S2 = Medium economies: Chile. Colombia. Peru and Venezuela:

S3 = Small economies: Bolivia. Costa Rica. Dominican Republic. Ecuador. El Salvador. Guatemala. Guyana. Haiti. Honduras. Jamaica. Nicaragua. Panama. Paraguay. Trinidad and Tobago. and Uruguay.

R^2 = Coefficient of determination: F = Coefficient of Fisher. from ANOVA.

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

conditions in the international economic scenario were more stable and the Bretton Wood institutions were working more closely in accordance with its original design (especially during the period 1960-73), the large economies of Latin America seem to have had significantly higher levels of economic growth.

However, when international economic conditions were not so stable and yet Latin American countries continued to implement processes of economic adjustment (1991-95), small and middle-sized economies in the region appear to have had higher levels of economic increase (see Table 6.5). The F coefficient emerges with high and significant values at 1 percent margin of error, and the coefficient of determination was only 34. This last number reflects a limited explanation of the model used in terms of economic growth.

6.3.2.2. Considering structure of exports

Following the results contained in Table 6.6 one realizes that labor, investments and exports had a similar impact on economic growth as shown in Table 6.5. The labor factor was significant during the periods 1960-73 and 1974-82. This result could be associated with the internal demand factor as an element for economic growth. At the same time, investments again appeared to have highly significant statistical values - 1 percent margin of error - in all periods under study, and exports had a significant repercussion on economic growth in all periods but 1991-95. Oil and agricultural export-oriented countries had statistically positive significance with regard to economic growth in the years 1991-95. The F coefficient was highly significant, and the coefficient of determination could not rise beyond 35 percent.

Table 6.6
Macroeconomic Analysis: Results Considering Structure of Exports

Characteristic	Periods			
	1960/73	1974/82	1983/90	1991/95
Labor	0.956**	1.430**	0.709	-0.384
Investments	0.122**	0.119**	0.136**	0.100**
Exports (Exp/GNP)	0.003**	0.002**	0.002**	0.001
X1	----	0.966	0.867	2.834
X2	1.056	0.319	-0.337	1.862*
X3	1.151*	-0.928	-0.593	3.486**
R²	0.315	0.285	0.327	0.336
F	27.907**	12.797**	13.788**	8.779**
No. of Observations	308	198	176	110

Notes:

X1 = Manufacturing 1960/73 zero: 1974/95: Brazil:

X2 = Oil 1960/73 Trinidad and Tobago and Venezuela 1974/95 Ecuador. Mexico. Trinidad and Tobago. and Venezuela:

X3 = Agriculture and Minining 1960/73 Argentina. Bolivia. Brazil. Chile. Colombia. Costa Rica. Dominican Republic. Ecuador. El Salvador. Guatemala. Guyana. Haiti. Honduras. Jamaica. Mexico. Nicaragua. Panama. Paraguay. Peru and Uruguay 1974/95 Argentina. Bolivia. Chile. Colombia. Costa Rica. Dominican Republic. El Salvador. Guatemala. Guyana. Haiti. Honduras. Jamaica. Nicaragua. Panama. Paraguay. Peru. and Uruguay.

R² = Coefficient of determination: F = Coefficient of Fisher. from ANOVA.

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

6.3.2.3. Considering regions

Following similar results from Tables 6.5 and 6.6, the evidence in Table 6.7 shows the pattern of impact on the economic growth of the region derived from the labor, investment and export factors: (a) labor was significant during all periods except 1991-95; (b) investments always appeared as significant elements at a 1 percent margin of error; and (c) exports were always significant except during 1991-95. Based on their regional placement, Southern Cone countries and Brazil had significant influence on their economic growth during 1960-73. They and the Andean countries emerged as having significant influence on their economic expansion during 1991-95. A factor behind this result could be the reinforced intratrade positions of the MERCOSUR nations - Argentina, Brazil, Paraguay and Uruguay. Chile and Bolivia were incorporated as partially integrated members in 1994. Again, the F coefficient appears to have had highly significant values at a 1 percent margin of error, and the coefficient of determination had its highest value during the periods 1983-90 and 1991-91 with 35 percent, showing the limited scope of explaining economic growth using the exogenous variables of this model.

6.3.2.4. Considering Positions [162]

Labor, investments and exports were consistent and followed the same trend as shown in the previous tables: (a) labor was significant during all periods except 1991-95; (b) investments always appeared as significant elements at a 1 percent margin of error; and

---

[162] Positions are designated according to network analysis models which resulted from the first methodological stage, Chapter 4 of this document. Countries in the same position have a similar pattern of international trade relations with other nations.

Table 6.7
Macroeconomic Analysis: Results Considering Regions

Characteristic	Periods			
	1960/73	**1974/82**	**1983/90**	**1991/95**
Labor	1.020**	1.663**	1.052**	-0.011
Investments	0.122**	0.117**	0.137**	0.098**
Exports (Exp/GNP)	0.003**	0.002**	0.002**	0.001
R1	0.971	-1.311	-1.655	1.685
R2	0.816	-1.326	-1.654	3.432**
R3	1.193*	-0.477	0.561	2.908**
R^2	0.316	0.277	0.356	0.353
F	23.291**	12.300**	15.707**	9.483**
No. of Observations	308	198	176	110

Notes:

R1 = Central America. Mexico. Caribbean: Mexico. Guatemala. El Salvador. Honduras. Nicaragua. Costa Rica. Panama. Haiti. Dominican Republic. Jamaica. and Trinidad and Tobago:

R2 = Andean Countries: Colombia. Venezuela. Guyana. Ecuador. Peru. and Bolivia:

R3 = Southern Cone and Brazil. Chile. Argentina. Uruguay. Paraguay and Brazil

R^2 = Coefficient of determination: F = Coefficient of Fisher. from ANOVA.

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

(c) exports were always significant except during 1991-95. The only periods in which semiperipheral and peripheral countries did not have significant economic growth were during the generation of regional international debt (1974-82) and during the era of implementing economic adjustment without economic growth (1983-1990). As usual, the F coefficient appears to have highly significant values at a 1 percent margin of error, and the coefficient of determination achieved its highest value (35%) during the period 1983-90. (See Table 6.8.)

6.3.2.5. Considering results with all dummy variables

Table 6.9 shows the results when all the dummy variables are considered as a complete set. From these numbers one can infer that labor maintained its importance during all periods, except 1991-95. This appears to be related to the characteristic that economic adjustment programs diminish the impact of labor on the GNP. In turn, this characteristic was associated with reduction in internal effective demand, chiefly due to devaluation and depreciation of currencies. One of the main consequences of this whole scenario was the increased levels of poverty in the region.

Another important feature presented here is the highly significant degree of investments. This variable, as utilization of capital factors, appears to have had notable impact on economic growth in Latin American countries throughout the 36 years from 1960 to 1995. Exports also had a heavy impact on economic expansion for the entire period, except 1991-95.

During the period 1991-95, the weight of causality for economic growth appears to have changed to other factors that are not included in this multiple regression model, as the

Table 6.8
Macroeconomic Analysis: Results Considering Positions

Characteristic	Periods			
	1960/73	1974/82	1983/90	1991/95
Labor	0.885**	1.546**	0.852**	-0.240
Investments	0.122**	0.120**	0.136**	0.099**
Exports (Exp/GNP)	0.003**	0.002**	0.002**	0.001
P1	2.078**	-0.899	0.698	2.861**
P2	1.145*	-0.867	-1.306	2.867**
R²	0.324	0.273	0.356	0.302
F	29.102**	14.541**	18.925**	9.098**
No. of Observations	308	198	176	110

Notes:

P1 = Semiperiphery: 1960/73 Argentina, Brasil, Mexico and Venezuela;

1974/95 Argentina, Brasil, Mexico, Venezuela, Chile and Colombia;

P2 = Periphery: 1960/73 Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, and Uruguay;

1974/95 Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, and Uruguay

R^2 = Coefficient of determination; F = Coefficient of Fisher, from ANOVA.

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

Table 6.9

Macroeconomic Analysis: Results Considering all Dummy Variables

Characteristic	Periods			
	1960/73	1974/82	1983/90	1991/95
Intercept	0.926	0.310	0.458	3.848**
Labor	1.067**	1.732**	0.959*	-0.308
Investments	0.123**	0.110**	0.149**	0.099**
Exports (Exp/GNP)	0.001	-0.001	0.001	-0.001
X1	----	1.090	0.231	-0.840
X2	0.734	1.530	0.415	-1.947*
P1	-0.727	-1.606	3.549*	0.068
R1	0.175	-1.793	-1.855*	-0.776
R2	0.219	-1.966	-2.522*	1.090
S1	1.840	0.650	-3.707*	-0.283
S2	-0.387	0.377	-0.932	0.112
R^2	0.263	0.242	0.350	0.399
F	11.829**	5.983**	8.905**	6.581**
No. of Observations	308	198	176	110

Notes:

X1 = manufacturing exports:

X2 = oil exports:

P1 = semiperiphery:

R1= Central American, Caribbean countries and Mexico:

R2 = Andean countries:

S1 = large economies:

S2 = medium economies.

R^2 = Coefficient of determination: F = Coefficient of Fisher, from ANOVA.

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

highly statistical significance of the intercept indicates. The coefficient of determination shows that of all the exogenous variables, they can reach only 40 percent of the economic growth explanation. This is evident, even though all independent variables under consideration have a notable degree of causality (F value had a high significance at a 1 percent margin of error).

Pertinent inferences about dummy variables are derived from Tables 6.7 and 6.8 because colinearity was detected between semiperipheral positions and large economies. All large economies emerged as having a semiperipheral condition.

6.3.2.6. Considering results with all dummy variables except positions

From Tables 6.10 and 6.11, it is evident that labor was not important to economic growth during the period 1991-95; that investments always had a significant role in economic expansion; and apparently that exports did not have important repercussions on the increase of regional production. Even more, oil exports emerge as having had a negative impact on economic growth during those years. One explanation for this can be found in the historically low prices for oil during the 1990s, taking into account average data.

In Table 6.10 and regarding regions, Central America/Mexico/Caribbean nations appear to have had economic growth based on their geographical location. Andean countries also experienced economic expansion affected by regional conditions. One influential factor was the implementation of the Caribbean Basin Initiative (CBI). It began in 1984, and one of its leading aims was to promote trade links with the United States based on foreign investments and non-traditional exports. The highest value of the coefficient of

Table 6.10
Macroeconomic Analysis:
Results Considering All Dummy Variables Except Positions

Characteristic	Periods			
	1960/73	1974/82	1983/90	1991/95
Intercept	1.015	0.178	0.742	3.856**
Labor	1.034**	1.726**	0.967*	-0.309
Investments	0.123**	0.111**	0.152**	0.099**
Exports (Exp/GNP)	-0.002	-0.001	0.001	-0.001
X1	----	1.074	0.290	-0.838
X2	0.403	1.302	0.925	-1.937*
R1	0.206	-1.621	-2.225*	-0.781
R2	1.999	-1.667	-3.176**	1.078
S1	1.102	-0.788	-0.518	-0.221
S2	-0.463	-0.847	1.778	0.165
R^2	0.262	0.239	0.334	0.399
F	13.307**	6.581**	9.275**	7.386**
No. of Observations	308	198	176	110

Notes:

X1 = manufacturing exports:

X2 = oil exports:

R1= Cetral American. Caribbean countries and Mexico:

R2 = Andean countries:

S1 = large economies:

S2 = medium economies.

R^2 = Coefficient of determination: F = Coefficient of Fisher, from ANOVA

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

determination was about 40 percent, and the F value as usual showed high statistical significance.

6.3.2.7. Considering results with all dummy variables except size of economies

In Table 6.11, in addition to the previously mentioned situation of labor, investments, exports, and the oil-producing countries during the nineties, Andean countries appear to have had a more negative impact on their economic growth during the eighties, that is, during the implementation of economic adjustment programs. Here an important factor was that Argentina, Bolivia, and Brazil, in particular, were having extraordinarily high levels of inflation.[163] Finally and again, the highest value of the coefficient of determination was about 40 percent, and the F value as usual shows high statistical significance.

6.3.3. Individual Latin American Countries

This study applied econometric analysis to individual countries, rather than including these countries as individual dummy variables with the other economic characteristics, in order to avoid problems concerning collinearity. When we apply the macroeconomic model with its main macroeconomic variables (labor, investment, and exports) to individual countries, it is possible to define several important characteristics. First, most of the countries appear to have had investment as a crucial macroeconomic variable for economic growth during the period 1960-1995. The exceptions were Chile, Colombia, Ecuador, El

---

[163] Regarding annual percent of inflation: Argentina had 4,924 in 1989; Bolivia 7,945 in 1985; and Brazil 983 in 1989. See International Monetary Fund, *International Financial Statistics 1992* (Washington DC: IMF, 1993), pp. 34-53.

Table 6.11
Macroeconomic Analysis:
Results Considering All Dummy Variables Except Size of Economies

Characteristic	Periods			
	1960/73	1974/82	1983/90	1991/95
Intercept	1.144	0.344	0.061	3.808**
Labor	0.973**	1.727**	1.094*	-0.296
Investments	0.122**	0.110**	0.151**	0.099**
Exports (Exp/GNP)	0.001	-0.001	0.003	-0.001
X1	----	1.261	-1.379	-1.062
X2	-0.157	1.531	0.154	-2.000*
P1	0.857	-1.148	1.598	0.016
R1	0.311	-1.799	-1.870	-0.776
R2	-0.031	-1.953	-2.142*	1.196
R^2	0.257	0.242	0.333	0.398
F	14.845**	7.544**	10.436**	8.372**
No. of Observations	308	198	176	110

Notes:

X1 = manufacturing exports.

X2 = oil exports.

P1 = semiperiphery.

R1= Cetral American. Caribbean countries and Mexico.

R2 = Andean countries.

R^2 = Coefficient of determination.

F = Coefficient of Fisher. from ANOVA.

* = When coefficient has statistical significance at = 0.05

** = When coefficient has statistical significance at = 0.01

No. of observations: number of countries (22) times number of years.

Salvador and Honduras. Second, in the cases of El Salvador, Panama, Venezuela, and Mexico, the labor aspect appears to have had high statistical significance. Labor was also important in achieving economic growth in Brazil, Colombia, and Guyana. Mexico and El Salvador are the only cases in which exports constituted an important variable for economic growth with statistical significance within the range of 5 percent margin of error. Third, better levels for explaining economic growth were observed in Brazil, the Dominican Republic, Mexico and Panama. In those cases, the values for the coefficient of determination were 64, 64, 77, and 60 percent, respectively (see Table 6.12).

When analysis was applied taking into account only the dummy variables for the years of each decade, we can see the rates of economic growth, not only for individual countries, but also for the region as a whole (see Table 6.13). The high levels of economic growth during the sixties and seventies are evident, as well as during the nineties. The eighties, the "lost decade," appear to have sustained a kind of insignificant economic gain in terms of national production. For some countries, nevertheless, they were years that on the average represented some economic improvement. This was the case in Brazil, Chile, Colombia, Costa Rica, and Paraguay. These nations had an important recovery in their national output, especially by the end of the eighties. On the other hand, important economic contraction also can be seen, particularly in Haiti and Nicaragua.

Finally, when the model is applied, taking into account the main macroeconomic variables and the years of each decade (see Table 6.14), it is important to realize that labor and investment maintained their role as crucial variables for economic growth. It is also noteworthy that the Latin American region did not recover at a statistically significant level of economic growth during the nineties. Based on the coefficient of determination results,

Table 6.12
Macroeconomic Analysis: Results Considering All Latin American Countries
and Labor, Investments and Exports,
1960-1995

No.	Country	Interc.	Labor	Invest.	Exports	R²	F
1	Argentina	7.849	-4.532	0.087*	0.005	0.143	1.802
2	Bolivia	4.443	3.098	0.054*	-0.006	0.167	2.045
3	Brazil	3.172	2.813*	0.286**	-0.013	0.642	19.076**
4	Chile	5.716	-0.986	0.068	0.003	0.132	1.603
5	Colombia	1.859	0.946*	0.052	0.008	0.158	2.023
6	Costa Rica	10.542	-2.157	0.102**	-0.001	0.384	6.752
7	Dominican Rep.	6.115	-1.518	0.217**	-0.001	0.642	19.413**
8	Ecuador	2.846	2.902	0.021	-0.005	0.154	1.952
9	El Salvador	4.031	2.702**	0.005	0.003*	0.492	10.321**
10	Guatemala	6.635	-1.112	0.072*	-0.006	0.201	2.832*
11	Guyana	1.832	2.274*	0.072*	0.002	0.192	2.632*
12	Haiti	5.868	-3.173	0.092**	-0.001	0.312	4.843**
13	Honduras	2.448	0.201	0.093	0.001	0.142	1.883
14	Jamaica	1.731	-0.063	0.182**	0.005	0.442	8.551**
15	Mexico	1.401	1.742**	0.233**	0.001*	0.772	36.974**
16	Nicaragua	0.903	0.763	0.233**	0.002	0.462	9.312**
17	Panama	4.811	3.283**	0.152**	0.006	0.602	16.342**
18	Paraguay	0.126	1.262	0.223**	0.003	0.491	10.253**
19	Peru	4.170	2.433	0.301**	0.001	0.582	15.062**
20	Trinidad and Tobago	0.833	2.172	0.171**	0.003	0.233	3.261*
21	Uruguay	0.673	0.691	0.212**	0.001	0.542	12.536**
22	Venezuela	4.012	2.123**	0.132**	0.041	0.572	14.297**

Notes:
R² = Coefficient of determination:
F = Coefficient of Fisher, from ANOVA.
* = When coefficient has statistical significance at = 0.05
** = When coefficient has statistical significance at = 0.01
No. of observations for each country: 36 (years).

Table 6.13
Macroeconomic Analysis: Results Considering All Latin American Countries
and 1960s, 1970s, 1980s and 1990s
1960-1995

No.	Country	1960s	1970s	1980s	1990s	R²	F
1	Argentina	3.908**	3.156*	0.433	3.533*	0.102	0.907
2	Bolivia	4.542**	4.037**	-0.228	4.056**	0.436	6.256**
3	Brazil	5.873**	8.549**	3.065**	1.162	0.369	4.665**
4	Chile	3.994*	3.061	4.479**	6.161**	0.042	0.354
5	Colombia	4.982**	5.886**	3.432**	4.367**	0.293	3.333*
6	Costa Rica	5.495**	6.345**	3.645**	4.187**	0.173	1.666
7	Dominican Rep.	3.587*	8.132**	2.933	2.169	0.184	1.787
8	Ecuador	3.765**	8.887**	2.488*	3.333*	0.369	4.512**
9	El Salvador	5.177**	4.557**	-0.343	5.098**	0.402	5.535**
10	Guatemala	4.833**	5.986**	1.178	4.097**	0.464	7.056**
11	Guyana	3.289*	1.995	-2.852	5.334**	0.274	3.032*
12	Haiti	0.232	3.687**	0.197	-2.123	0.302	3.512**
13	Honduras	3.865**	6.137**	2.632*	2.567	0.163	1.638
14	Jamaica	3.628**	0.828	0.987	1.532	0.082	0.786
15	Mexico	5.124**	6.473**	2.133*	1.598	0.284	3.132*
16	Nicaragua	6.566**	0.697	-1.388	0.835	0.187	1.788
17	Panama	7.448**	4.749**	0.166	5.533**	0.302	3.465**
18	Paraguay	4.032**	7.746**	4.187**	3.098*	0.231	2.435*
19	Peru	3.167*	3.964*	0.293	3.666	0.082	0.733
20	Trinidad and Tobago	4.421**	5.286**	-1.121	1.666	0.193	1.957
21	Uruguay	1.865	2.688*	0.632	2.834	0.042	0.399
22	Venezuela	5.287**	4.023**	-0.289	3.806*	0.258	2.766*

Notes:
R^2 = Coefficient of determination:
F = Coefficient of Fisher. from ANOVA.
* = When coefficient has statistical significance at = 0.05
** = When coefficient has statistical significance at = 0.01
No. of observations for each country: 36 (years).

Table 6.14
Macroeconomic Analysis: Results Considering All Latin American Countries,
Labor, Investments, and Exports during 1960s, 1970s, 1980s and 1990s
1960-1995

No	Country	Labor	Invest	Exports	1960s	1970s	1980s	1990s	R^2	F
1	Argentina	6.87	0.07	0.02	12.46	12.09	9.74	10.22	0.19	1.01**
2	Bolivia	1.65	0.02	0.01	0.24	-0.02	-3.96	-0.15	0.45	3.46
3	Brazil	3.44	0.27**	0.01	5.35	3.18	-3.51	2.45	0.76	13.26**
4	Chile	3.62	0.07	0.04	12.58	8.12	10.19	12.43	0.22	1.17
5	Colombia	0.38	0.05*	0.04	3.31	4.51	2.06	2.81	0.39	2.68**
6	Costa Rica	3.58	0.08**	0.02*	15.32	16.11**	13.66*	12.65*	0.57	5.55**
7	Dominican Republic	1.95	0.21**	0.02	6.08	10.29**	6.41	5.22	0.75	12.61**
8	Ecuador	3.48	0.05	0.02	7.19	1.10	-6.78	-3.81	0.41	2.89*
9	El Salvador	1.78*	0.05	0.03	0.98	1.14	-3.71*	-0.22	0.58	5.72**
10	Guatemala	0.25	0.05*	0.03	5.48	5.93*	1.78	4.57	0.57	5.50**
11	Guyana	2.30	0.07*	0.01	-2.30	-2.03	-4.22*	3.20	0.38	2.62*
12	Haiti	1.32	0.07*	0.01	-1.88	0.35	-2.39	-4.81	0.42	3.08*
13	Honduras	2.99	0.07	0.04	13.44*	16.05*	12.47	10.30	0.35	2.27*
14	Jamaica	0.81	0.19**	0.05	3.49	3.24	0.90	3.13	0.51	4.33**
15	Mexico	2.19*	0.23**	0.08	3.74	1.84	-2.26	-2.80	0.80	17.22**
16	Nicaragua	5.92	0.20**	0.06	12.25	17.85	-15.83	-17.92	0.53	4.85**
17	Panama	1.30	0.14**	0.05	1.77	0.45	-1.09	-1.15	0.61	6.60**
18	Paraguay	0.59	0.19**	0.05	1.65	3.55	1.91	0.49	0.55	5.23**
19	Peru	2.17	0.30**	0.06	7.65	9.03	4.20	4.73	0.64	7.61**
20	Trinidad and Tobago	2.05	0.11	0.02	0.04	1.66	-3.24	-0.68	0.31	1.92
21	Uruguay	3.45	0.24**	0.08	2.51	3.28	0.02	-1.33	0.58	5.86**
22	Venezuela	1.85	0.12**	0.04*	2.39	2.97	-5.18	-1.64	0.66	8.04**

Notes:
R^2 = Coefficient of determination.
F = Coefficient of Fisher. from ANOVA.
* = When coefficient has statistical significance at = 0.05
** = When coefficient has statistical significance at = 0.01
No. of observations for each country: 36 (years).

countries in which the model more significantly explained economic growth were Brazil (76 percent), Mexico (80 percent), and the Dominican Republic (75 percent). In terms of decades, El Salvador, Guyana and Nicaragua appear to have had important economic contraction within the region especially during the eighties.

Taking into consideration that this chapter has focused on the question of whether or not exports have been a significant force behind economic growth for Latin American economies, and keeping in mind the macroeconomic model utilized here, two main points can be stressed. First, among the variables under study as factors influencing rates of economic growth - labor, investments, exports, and openness of economies - investments and labor have been shown as dominant during the period 1960-1995. Only in the specific cases of some oil-exporter countries, namely Mexico and Venezuela, and during limited periods (especially during the seventies), did exports have a notable effect on economic growth levels. Labor, as a variable, appears to have had a significant impact on economic growth until 1990.

Second, the characteristics for grouping Latin American countries which were used here as dummy variables, namely (a) structure of exports (oil, manufacturing, and agriculture/mining); (b) Latin American regions (Mexico/Central America/Caribbean, Andean, and Southern Cone); (c) position (semiperipheral and peripheral countries); and (d) size of economies (large, medium, and small), were shown not to be factors with statistically significant influence on economic growth. Nevertheless, it is important to realize that a serious and systematic effort to open Latin American economies has developed since the end of the eighties.

Chapter 7

CONCLUSIONS

7.1. General

a) <u>A process of segregationist globalization</u>. A process of globalization is taking place at a worldwide level. It has two principal spheres of action: communications and economics, and their repercussions can be seen at local, regional, national, and international levels. The arena of communications, in particular, has had a significant impact on cultural values and patterns of consumption. Economics, specifically international trade relationships of Latin American countries, has been the basic sphere under study in this document, and it has been shown that a process of globalization and segregation is occurring under existing conditions.

The globalization phenomenon involves an increasing level of integration. The more developed countries, generally, and the more economically powerful sectors of the less developed countries - those sectors which can integrate themselves into the new dynamics of current economic conditions - are participating in processes of globalization. However, those sectors which cannot integrate themselves into social and economic structures internally, and those nations which do not have an efficient means to integrate themselves into the new economic system, are being marginalized.

160

That is to say, some countries are occupying more and more peripheral positions. Evidence of this process of segregation is evident in two major indicators: (a) The augmented/increasing marginal position of Latin America as a whole within the world trade system; and (b) The evidence that among Latin American nations, those with the worst social indicators are improving them at a slower rate than the pace at which the most socially advanced countries in the region are improving theirs. Another important aspect within economic considerations is the processes by which some important exports from developing nations are being replaced by manufactured products in the more industrialized nations. More developed nations and socially integrated sectors are abandoning the marginalized countries to their social convulsions. The result is a widening gap among nations, and a papttpem of increasing segregation. This process of segregation can be extended to political and social aspects of countries or international regions.

Recognition of this phenomenon leads to the establishment of mechanisms of south-south cooperation, including flexible responses to global markets, restructuring patterns of exports, implementing policies toward augmenting domestic effective demand, coordination of trade policies, and international migrational issues. This set of considerations can be included as part of the efforts at policy coordination and intra-regional economic and social support. They can take the form of general pacts or specific agreements focused on particular issues. This basis of understanding among developing nations can also provide a political framework for adopting a mutually coordinated position

before negotiations with international organizations. It is also related to the need for more effective economic integration.

b) <u>The requirement/need for economic and social integration</u>. Taking into consideration social conditions that currently exist and their trends within Latin American nations, processes of social integration are needed. Social integration means that more and more social sectors will be able to satisfy their needs, especially within the market system. It also includes policies oriented toward the elevation of standards of living, the creation of more productive opportunities for more of the population and movement toward eliminating the inequality of economic distribution in societies.

To achieve these goals, better education and more effective and efficient social services are required. Such programs must be built on basic assumptions which include, among other factors, respect for cultural values, respect for human rights, satisfaction of genuine needs, and a rational and sustainable use of natural systems.

Economic integration is principally identified among nations, and is generally related to issues concerning financial and technological cooperation, as well as trade agreements. This integration is extremely important, especially in the case of small economies. They, because of their own inherent features, are destined to be placed in the peripheral and more vulnerable positions in the international trade system. Important problems emerge at this point, such as the complementary nature of the export structure, the problem of creating or

diverting international trade, protectionist or non-protectionist policies, and a better participation, both at nationally and regionally, in the new economic trends.

A crucial element here is the authentic political will of governments and social institutions to meet their responsibilities. An advanced degree of political legitimization is needed not only in legal terms, but also in concrete social achievements. Processes of economic integration can be developed from general agreements or from specific pacts concerning particular problems. In the case of proper economic integrational treaties, the advantages are summarized as follows: (a) an increase in the size of domestic markets; (b) the prospect of implementing production processes of economies of scale; (c) the opportunity to develop coordinated positions and more power in international negotiations and decisions; (d) the possibility of creating whole regional areas with close macroeconomic coordination; and (e) a lessening of external vulnerability for countries forming economic pacts.

c) "Gravitational" elements as factors of international trade. Some factors affect international trade among nations in a direct and positive manner, and others affect it negatively. Aspects favoring international trade are openness of economies, complementary structure of exports, size of economies, and historical and social factors. Factors opposing international trade links are characterized by geographical distance - especially for primary and secondary economic sector products - competitive/substitute roles of other nations, and adverse historical and social factors. Hence it is viable to recognize here a similarity with the existence of "gravitational" fields in which the dominant

poles are the main economies, in terms of size and/or development. These outweighing economies become the "natural" markets chiefly for small and adjacent countries.

Acknowledging these conditions, a recommended policy is to reinforce the role of economic integration. A clear successful case of this phenomenon is MERCOSUR. It has small close economies, Uruguay and Paraguay, and also a more developed internal demand in huge economies, Argentina and Brazil. Countries can follow a general approach to economic integration based on the classical stages to achieve it, or develop a path made up of specific projects. The latter can play a role in creating conditions for development of further stages of economic integration.

7.2. Regarding the Particular Hypothesis

a) In terms of exports, the group comprising Central American nations, Caribbean nations, and Mexico, tends to form a trading block with the United States. Andean countries as a group have less of this characteristic, and Southern Cone countries and Brazil have more export links with Europe. Regarding imports, the first group and the Andean countries tend to form a trading block with the United States, while the Southern Cone countries and Brazil appear to be more distant. However, a general inclination to form international trade links with the U.S. is evident in the Latin American region as a whole in what seems to be a substitute process for trade relationships with Europe. This characteristic is more evident in terms of imports than exports.

b) Based on the macroeconomic model which took into account variables about rates of growth of labor, investments, exports, and openness of economies, it is evident that the dominant factors for economic growth in Latin America during the period 1960-1995 were investments and labor. The latter variable appears to have statistical significance until 1990. It is not possible using the data studied to attribute a predominant role of causality to exports as a significant leading force behind regional economic growth. This conclusion is observable even in oil-exporting countries. Nevertheless, it is important to realize that during these years, that is until the nineties, Latin American countries were further developing their export sectors with growing openness in their economies.

7.3. Complementary

a) Since 1960 and sometimes excluding Honduras, Central American countries -Costa Rica, El Salvador, Guatemala and Nicaragua - appear to have had a tendency to form cliques. This characteristic is attributable to the effects of the Central American Common Market;

b) Countries that currently are part of MERCOSUR - Argentina, Brazil, Paraguay and Uruguay - also have an inclination to form themselves into cliques. This property was evident even before the operational actions of MERCOSUR in 1992;

c) Since 1985 Colombia and Venezuela have been a clique in the international trade scenario;

d) Countries with big and middle-sized economies - Argentina, Brazil, and Mexico; and Chile, Colombia, and Venezuela, respectively - tend to be semiperipheral nations within the international trade sphere;

e) Latin America's share of the international trade system decreased from 8 percent in 1960 to 4 percent in 1995. Based on data related to this indicator, and years since 1960, this study has developed the following model:

$$y = 3\,E\text{-}07x^6 - 4\,E\text{-}05x^5 + 0.001x^4 - 0.025x^3 + 0.209x^2 - 0.909x + 8.396$$

$$R^2 = 0.8105$$

Where y = Latin American percent share of the word international trade,
x = years.
R^2 = coefficient of determination.

f) The degree of openness of the Latin American economy as a whole in terms of share of exports over regional GNP has grown from 12 percent in 1970 to 19 percent in 1995. Based on data regarding this indicator, and years since 1970, this study has developed the following model:

$$y = 5\,E\text{-}06x^6 - 0.0004x^5 + 0.0104x^4 - 0.1415x^3 + 0.9499x^2 - 3.079x + 14.119$$

$$R^2 = 0.8655$$

Where y = Latin American percent share of its exports on its total GNP.
x = years.
R^2 = coefficient of determination.

g) Characteristics studied as dummy variables in chapter six of this document regarding econometric models - structure of exports, regions, size of economies,

and position of nations in the international trade system - did not show up as factors

with statistically significant influence on economic growth.

BIBLIOGRAPHY

BIBLIOGRAPHY

Akzin, B. *Estado y Nación*. Mexico: Fondo de Cultura Economica, 1988.

Alexander, R. *Financiamiento externo, deuda y transformación productiva*. San Salvador, El Salvador: UCLA, 1990.

Alford, R. *Los Poderes de la Teoría. Capitalismo, estado y democracia*. Buenos Aires, Argentina: Editorial Manantial, 1991.

Ambrose, S. *Rise to globalism: American foreign policy since 1938*. New York: Penguin Books, 1988.

Antesana, O. *La magia de las exportaciones*. La Paz: Centro de Investigaciones para el Desarrollo, 1993.

Bailey, K. *Methods of social research*. New York: The Free Press, 1994.

Bairoch, P., and R. Kozul-Wright. *Globalization myths: Some historical reflections on integration, industrialization and growth in the world economy*. United Nations Center on Trade and Development (UNCTAD) discussion paper 113. Geneva: UNCTAD, 1996.

Balassa, B. *Theory of economic integration*. London: Harcourt, 1964.

Barbone, L., and J. Zalduendo. *EU accession and economic growth*. World Bank Policy Research Working Paper 1721. Washington, DC: World Bank, 1996.

Barnet, R., and J. Cavanagh. *Global dreams*. New York: Touchstone, 1994.

Baumol, William. *Macroeconomics: principles and policy*. Orlando, FL: Harcourt Brace Jovanovich, 1988.

Bell, D. *El Advenimiento de la Sociedad Post-Industrial*. Madrid: Ed. Alianza, 1987.

Bergesen, A. *Studies of the Modern World-System*. New York: Academic Press, 1984.

169

Blake, D., and R. Walters. *The politics of global economic relations*. Englewood Cliffs, NJ: Prentice-Hall, 1976.

Blecker, R. *Taming global finance*. London: Economic Policy Institute, 1999.

Bodenheimer, S. *Dependency and Imperialism: The roots of Latin American underdevelopment*. New York: NACLA, 1970.

Bohrnstedt, G., and D. Knoke. *Statistics for social data analysis*. Itasca, IL: Peacock, 1988.

Bruno, M., M. Ravaillon, and L. Squire. "Equity and growth in developing countries: Old and new perspectives on the policy issues." In *Income distribution and high-quality growth*, ed. V. Tanzi and K. Chu. Cambridge, MA: MIT Press, 1998.

Buckley, K. *Panama, the whole story*. New York: Simon and Schuster, 1991.

Bulmer-Thomas, V. *The political economy of Central America since 1920*. New York: Cambridge University Press, 1988.

Bulmer-Thomas, V. *Studies in the economics of Central America*. London: MacMillan, 1992.

Burt, R. *Structural holes: The social structure of competition*. Stanford, CA: Stanford University Press, 1990.

Carbaugh, R. *International economics*. Belmont, CA: Wadsworth, 1992.

Cardoso, F., and E. Falleto. *Dependency and Development in Latin America*. Berkeley: University of California Press, 1979.

Cardoso, E., and A. Helwege. *Latin America's economy*. Cambridge, MA: MIT Press, 1992.

Castro, O. *Estrategia para incrementar el comercio intracentroamericano*. Washington, DC: Banco Interamericano de Desarrollo, 1988.

Chereny, H., et al. *A uniform analysis of development patterns*. Economic Development Report no. 148. Cambridge MA: Harvard University Press, July 1980.

Chirot, D. *Social change in a peripheral society: The creation of a Balkan colony*. New York: Academic Press, 1993.

Clarke, T. *Multilateral Agreement on Investment*. Toronto, Canada: Staddard, 1997.

Coatsworth, J. *Central America and the United States*. New York: Twayne Publishers, 1994.

Comisión Económica para América Latina y el Caribe (CEPAL). *Transformación productiva con equidad*. Santiago de Chile, Chile, ECLAC, 1990.

Comisión Económica para América Latina y el Caribe (CEPAL). *Condiciones sociales en América Latina 1995*. Santiago de Chile, Chile: CEPAL, 1996.

Comisión Económica para América Latina y el Caribe (CEPAL). *Latin America: The economic experience of the last 15 Years, 1980-1995*. Santiago, Chile: CEPAL, 1996.

Comisión Económica para América Latina y el Caribe (CEPAL). *Políticas para mejorar la inserción en la economía mundial*. Santiago de Chile, Chile: CEPAL, 1996.

David, B. *El nacimiento de los países latinoamericanos*. Madrid, España: Bruguera, 1989.

Dickens, P. *The global shift*. New York: Guildor, 1998.

Dos Santos, T. *The Structure of Dependence*. Boston: Extending Horizons, 1971.

Dostert, P. *Latin America 1996*. Harpers Ferry, WV: Stryker-Post Publications, 1997.

Dunn, Robert. "The Many Disappointments of the Flexible Exchange Rates." In *Essays in international Finance No. 154*. Princeton, NJ: International Finance Section, Princeton University Press, 1983.

Economic Commission for Latin America and the Caribbean (ECLAC). *Shock externo y desequilibrio fiscal: La macroeconomía de América Latina en los años ochenta*. Santiago de Chile, Chile: ECLAC, 1994.

Economic Commission for Latin America and the Caribbean (ECLAC). *The economic experience of the last 15 years, 1980-1995*. Santiago de Chile, Chile: ECLAC, 1996.

Economic Commission for Latin America and the Caribbean (ECLAC). *Fortalecer el desarrollo*. Santiago de Chile, Chile: ECLAC, 1997.

Economic Commission for Latin America and the Caribbean (ECLAC). *Social panorama of Latin America*. Santiago de Chile, Chile: ECLAC, 1997.

Eicher, C., and L. Witt. *Agriculture in economic development*. New York: McGraw-Hill, 1987.

Etzioni, E. *Social change*. New York: Basic Books, 1991.

Fagen, R. " Theories of Development: The question of class struggle." *Monthly Review* 35 (1983): 13-24.

Feder G. "On exports and economic growth." *Journal of Development Economics* 12 (1982): 59-73.

Fisher, S. *Macroeconomics.* New York: MacMillan, 1994.

Foster, J. "Contradictions in the universalization of capitalism. *Monthly Review* 50, no. 11 (April 1999): 39.

Foster-Carter, A. "Neo-Marxist Approaches to Development and Underdevelopment." *Journal of Contemporary Asia* 3 (1973): 7-33.

Frank, G. *Latin America: Underdevelopment and Revolution.* New York: Monthly Review Press, 1969.

Friedman, M. "The methodology of positive economics." In *Essays in positive economics.* Chicago: University of Chicago Press, 1953.

Friedrichs, R. *A Sociology of Sociology.* New York: Free Press, 1970.

Fuentes, A., and J. Villanueva. *Economía mundial e integración de América Latina.* Buenos Aires, Argentina: Editorial Tesis, 1989.

Galbraith, J. *La cultura de la satisfacción.* Buenos Aires: Ariel, 1992.

General Agreement on Tariffs and Trade (GATT). *GATT annual report 1993.* Washington, DC: The John Hopkins University Press, 1994.

Giddens, A. *The consequences of modernity.* Stanford, CA: Stanford University Press, 1990.

Gillis, M. *Economics of development,* 2d ed. New York: W. W. Norton, 1993.

Goldfrank, W. *The World-System of Capitalism: Past, and Present.* Beverly Hills, CA: Sage, 1986.

Gough, I. *Economía política del estado de bienestar.* Madrid, España: Blume, 1992.

Guerra-Borges, A. *Hechos, experiencias, y opciones de la integración centroamericana.* San Jose, Costa Rica: Facultad Latinoamericana de Ciencias Sociales (FLACSO), 1993.

Habermas, J. *Crisis of legitimacy.* Boston: Beacon Press, 1984.

Habermas, J. *Theory of social communication.* Boston: Beacon Press, 1989.

Habermas, J. *Theory of social action.* London: MacMillan, 1992.

Habermas, J. *The transformation of the public sphere.* Boston: Wadsworth, 1993.

Hailstones, T. *Viewpoints on supply-side economics.* Reston, VA: Reston Publs., 1984.

Halperin, T. *Historia de América Latina.* Madrid, España: Alianza Editorial, 1990.

Hauchler, I. *Global trends.* New York: Continuum Publishing Co., 1994.

Heckscher, E., and B. Ohlin. *Interregional and international trade.* Cambridge: Harvard University Press, 1933.

Held, D. *Modelos de democracia.* Madrid, España: Alianza Editorial, 1992.

Helleiner, G. *International trade and economic development.* Harmondsworth, England: Penguin, 1990.

Helliner, G. Outward orientation, import instability and African economic growth: An empirical investigation." In *Theory and reality in development,* ed. S. Lall and F. Stewart. London: McMillan, 1984.

Hermassi, E. "Changing Patterns in Research on the Third World." *Annual Review of Sociology* 4 (1978): 239-57.

Hirschman, A. *De la economía a la política y más allá.* Mexico: Fondo de Cultura Economica, 1987.

Huntington, S. *The Change to Change: Modernization, development and politics.* New York: Free Press, 1976.

Husted, S, and M. Melvin. *International economics.* New York: Harper Collins, 1995.

Inter-American Development Bank. *IDB Annual Report 1984.* Washington, DC: The Johns Hopkins University, 1985.

Inter-American Development Bank. *Economic and social progress in Latin America 1992 Report.* Washington DC: The Johns Hopkins University Press, 1993.

Inter-American Development Bank. *Economic and social progress in Latin America 1993.* Washington, DC: IDB, 1994.

Inter-American Development Bank. *Economic and social progress in Latin America 1996 report*. Washington DC: IDB, 1996.

Inter-American Development Bank. *Latin America after a decade of reforms*. Washington, DC: The Johns Hopkins University Press, 1997.

International Monetary Fund. *International financial statistics yearbook 1991*. Baltimore: The John Hopkins University Press, 1992.

International Monetary Fund. *International Financial Statistics 1992*. Washington, DC: IMF, 1993.

International Monetary Fund. *International financial statistics 1994*. New York: Harper Collins, 1995.

Isuani, E. *El estado benefactor. Un paradigma en crisis*. Buenos Aries, Argentina: Miño y Davila, 1991.

Jackson, J. *The world trading system*. Cambridge, MA: MIT Press, 1994.

Kaplan, B. *Social change in the capitalist world*. Beverly Hills, CA: Sage, 1993.

Keith, N. *New perspectives on social class and socioeconomic development in the periphery*. New York: Greenwood Press, 1990.

Khan, B., T. Mohsin, J. Villanueva, and K. Delano. "Macroeconomic policies and long-term growth: A conceptual and empirical review." IMF Working paper. Washington, DC: International Monetary Fund, March, 1991.

Killick, T. *Adjustment and financing in the developing world*. Washington, DC: International Monetary Fund, 1982.

Killing, J. *The Quest for Economic Stabilization: The IMF and the Third World*. London: Overseas Development Institute, 1984.

Kimmel, A. *Values in applied social research*. Newbury Park, CA: Sage, 1988.

King, G., et al. *Designing social inquiry*. Princeton, NJ: Princeton University Press, 1994.

Kissinger, H. *Report of the national bipartisan commission on Central America*. Washington, DC: U.S. Government Printing Office, 1984.

Knippers, J. *Latin America, its problems and its promise*. Boulder, CO: Westview Press, 1991.

Kouri, P. *Debt, stabilization and development*. New York: Basil Blackwell, 1989.

Krauss, C. *Inside Central America*. New York: Summit Books, 1992.

Krueger, A. *Trade and employment in developing countries*. Chicago: University of Chicago Press, 1987.

Krugman, P. *Rethinking international trade*. Cambridge, MA: MIT Press, 1990.

Krugman, P. *Pop internationalism*. Cambridge, MA: MIT Press, 1997.

Lair, S., and A. Yeats. *Quantitative methods for trade-barrier analysis*. New York: New York University Press, 1990.

Lal, D., and S. Rajapatirana. "Foreign trade regimes and economic growth in developing countries." *World Bank Research Observer* 2, no. 2 (July 1987).

Landsberg, M. "Export-led Industrialization in the Third World: Manufacturing Imperialism." *Review of Radical Political Economics* 11 (1979): 50-63.

Lechner, N., ed. *Estado y política en América Latina*. Mexico, D.F., México: Siglo XXI Publishers, 1987.

Leon, Roberto de. *The left coast city*. San Francisco: McMillan, 1994.

Levitt, T. *The marketing imagination*. New York: The Free Press, 1986.

Levy, M. *Social Patterns and Problems of Modernization*. Englewood Cliffs, NJ: Prentice-Hall, 1967.

Liz, R. *Crecimiento Económico, Empleo y Capacitación*. Buenos Aires, Argentina: PNUD, 1993.

Londoño, J., and M. Szekely. *Persistent poverty and excess inequality: Latin America, 1970-1995*. IADB working paper 357. Washington, DC: IADB, 1997.

Lubbers, R. *Globalization, economists and the real world*. London: Tillburgh 1999.

Lubbers, R. *Concepts on globalization*. (www.globalize.org/publications/dynamic.html)

Maddison, A. *Dynamic forces in capitalist development*. Oxford: Oxford University Press, 1991.

Maitra, P. *The globalization of capitalism in Third World countries*. Westport, CT: Praeger, 1996.

Maizels, A. *Exports and economic growth of developing countries.* London: Cambridge University Press, 1988.

Martinez, M. *Democracias de fachada.* San Jose, Costa Rica: FLACSO, 1991.

McClelland, D. *Business Drive and National Achievement.* New York: Basic Books, 1964.

Michael M. *International money and finance.* New York: Harper Collins, 1995.

Michaely, M. "Exports and growth an empirical investigation." *Journal of Development Economics* 4, no, 1 (1992): 149-53.

Michaely, M. *Concentration in international trade.* Amsterdam: North Holland Publishing Co., 1962.

Moore, M. *Globalization and social change.* New York: Elsevier, 1993.

Moreno, D. *The struggle for peace in Central America.* Gainesville: University Press of Florida, 1994.

Mortimore, M. "A new international industrial order: increased international competition in a centric world." *CEPAL Review* 48 (August 1992). Santiago de Chile, Chile: CEPAL.

Portes, A. *Labor, class, and the international system.* New York: Aberdeen, 1992.

Poulantzas, N. *Estado y Sociedad en Naciones Dependientes.* Mexico: Siglo XXI editores, 1989.

Prebisch, R. *The Economic Development of Latin America and Its Principal Problems.* New York: United Nations, 1950.

Priesmeyer, H. *Chaos system software: business edition.* Fair Oaks Ranch, TX: Management Concepts, 1996.

Ragan, J. *Principles of economics.* New York: Harcourt Brace Jovanovich, 1991.

Ramirez, N. *Pobreza y Procesos Sociodemograficos en Republica Dominicana.* Buenos Aires, Argentina: PNUD, 1993.

Redfield, R. *Peasant Society and Culture.* Chicago: University of Chicago Press, 1965.

Rosa, H. *AID y las transformaciones globales en El Salvador.* Managua, Nicaragua: CRIES, 1993.

Rose, A. "Why has trade grown faster than income?" In *International Finance Discussion Papers Nov. 1990*. Washington, DC: Board of Governors of the Federal Reserve System, November 1990.

Saca, N. *Política de estabilization y deuda externa*. San Salvador, El Salvador: UCA, 1991.

Samuelson, P. *Principios de economía*. Mexico: Fondo de Cultura Economica, 1990.

Schmidt, W. *América Latina entre la polarización del mercado mundial y la apertura*. Quito, Ecuador: CAAP, 1993.

Schott, T. *Structure, reference manual*. New York: Columbia University Press, 1993.

Sethuraman, V. *The urban informal sector in developing countries*. Geneva: International Labour Office, 1991.

Sheahan, J. *Patterns in Latin America: Poverty, repression, and economic strategy*. Princeton, NJ: Princeton University Press, 1988.

Singer, H., and P. Gray. "Trade policy and growth of developing countries." *World Development 16*, no. 3 (March 1988): 395-403.

Skidmore, T., and P. Smith. *Modern Latin America*. Oxford, USA: Oxford University Press, 1992.

Smelser, N. *Toward a Theory of Modernization*. New York: Basic Books, 1964.

Smith, D., and D. White. "Structure and dynamics of the global economy." *Social Forces* 70, no.4 (June 1992): 857-93.

So, A. *The South China Silk District*. Albany, NY: SUNY Press, 1986.

So, A. *Social Change and Development*. Newbury Park, CA: Sage, 1991.

Stanley, M., and C. McConnelll. *Macroeconomics: principles, problems, and policies*. New York: McGraw-Hill, 1990.

Stewart, F. *Theory and reality in development*. London: Mcmillan, 1986.

Stirton, F. *Inside the volcano: The history and political economy of Central America*. Boulder, CO: Westview Press, 1994.

Sunkel, O. "Contemporary economic reform in historical perspective", in *Pensamiento Iberoamericano Revista de Economia Politica Jul-Dic. 1992*, pp. 127-171.. Madrid, España: REP, 1992.

Svetlicic, M., and H. Singer. *The world Economy: Challenges of globalization and regionalization.* New York: St Martin's Press, 1996.

System for Statistics, Inc. *Systat statistics.* Evanston, IL: SYSTAT, 1993.

Szekely, L. *Disbributional surprises after reforms in Latin America.* Washington, DC: The Jonhs Hopkins University Press, for the Inter-American Development Bank, 1997.

Tilly, Ch. *Big structures, large processes, huge comparisons.* New York: Russell Sage, 1989.

Tipps, D. *Modenization Theory and the Comparative Study of Societies: A critical perspective.* New York: Free Press, 1976.

Todaro, M. *Economic development in the Third World.* New York: Longman, 1995.

Torres-Rivas, E. *Centroamérica: las democracias posibles.* San Jose, Costa Rica: FLACSO, 1990.

Torres-Rivas, E. *Interpretación del desarrollo social centroamericano.* San Jose, Costa Rica: EDUCA, 1993.

United Nations Organization. *Human development report 1992.* New York: ONO, 1993.

United Nations Organization. *Human development report 1997.* New York: ONO, 1998.

United Nations Organization. *International Trade Statistics Yearbook.* New York: United Nations Publishing Division, 1964, 1966, 1967, 1972, 1974, 1977, 1978, 1981, 1983, 1987, 1988, 1992, 1993, and preliminary data 1996.

Vaitsos, C. *Una Estrategia Integral para el Desarrollo.* Santo Domingo, Republica Dominicana: PNUD, 1992.

Vilaseca, J. *Los esfuerzos de Sísifo: integración económica en América Latina y el Caribe.* Madrid, España: La Catarata, 1994.

Villanueva, J. *Perspectivas del desarrollo industrial latinoamericano.* Buenos Aires, Argentina: INTAL, 1979.

Vuskovic, P. *Pequeños países periféricos en America Latina.* Managua, Nicaragua: CRIES, 1990.

Wallerstein, I. *World-System Analysis*. Stanford, CA: Stanford University Press, 1987.

Wallerstein, I. *Africa: The Politics of Unity*. New York: Random House, 1977.

Walther, T. *The world economy*. New York: John Wiley & Sons, 1997.

Waters, M. *Globalization*. London: Routledge, 1995.

Weber, M. *Economia y sociedad*. Mexico, D.F., Mexico: Fondo de Cultura Economica, 1987.

Weber, M. *The Protestant ethic and the spirit of capitalism*. New York: Scribner, 1988.

Wiarda, H., and H. Kline. *Latin American politics and development*. Boulder, CO: Westview Press, 1990.

Wood, Adam. *North-South trade, employment and inequality*. Oxford: Oxford University Press, 1994.

World Bank. *World development report 1990*. New York: Oxford University Press, 1991.

World Bank. *World development report 1993*. Baltimore: The Johns Hopkins University Press, 1995.

World Bank. *World development report 1995*. Baltimore: The Johns Hopkins University Press, 1996.

World Bank. *World development report 1998*. Baltimore: The Johns Hopkins University Press, 1996.

World Bank. *World tables 1995*. Baltimore: The Johns Hopkins University Press, 1996.

World Bank. *World tables 1998*. Baltimore: The Johns Hopkins University Press, 1996.

Yarbrough, B., and R. Yarbrough. *The world economy: Trade and finance*. Chicago: Dryden Press, 1992.