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Economic integration among less-developed countries.

Graham Clayton
University of Windsor

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Economic Integration Among Less-Developed Countries

A Thesis
Submitted to the Faculty of Graduate Studies through the Department of Economics in partial fulfillment of the requirements for the Degree of Master of Arts at the University of Windsor.

by

Graham Clayton

University of Windsor
1974
Abstract

This study takes an overview of economic integration among less-developed countries (LDCs). The various forms of integration are reviewed along with their advantages and disadvantages. In the postwar period a growing number of LDCs have expressed interest to varying degrees in economic integration. It is a little known fact that most integration endeavours currently in existence are between LDCs. Even the three major developed country movements have LDC associate-members. Given this situation the question naturally arises as to what economic theory has to say about integration among LDCs. The theoretical body most commonly drawn upon for integration matters is static customs union theory. This theory has been employed on a number of occasions to argue that LDCs will not benefit from integration. It is found that this theory is seriously incomplete and that its conclusions are of questionable validity. Its direct application to LDCs is grossly inappropriate, and its conclusions may be seriously misleading. There is no single hard and fast body of theory for judging the LDC case. It is therefore necessary to draw from many different branches of theory including growth theory, regional economics, dynamics, etc., in order to derive some insight into the LDC case. Neither is economic integration a simple undertaking of quite limited dimensions. It can become incredibly complex. The benefits from economic integration can be substantial, but they are not automatic. Integration among LDCs requires considerably more than the dismantling of direct trade restraints between member-states.
if the endeavour is to have a reasonable chance for success. The benefits of integration can vary greatly from grouping to grouping, and for some integration may be a costly mistake. A weighted consideration of many factors should be undertaken before the integration decision is made. The nature of a large number of these factors is discussed in the study.
Acknowledgements

First I would like to thank my parents for their endless support and encouragement through good times and bad.

I wish to express my gratitude to my first advisor Prof. Z.M. Fallenbuchl. His constructive criticism and scholarly advice added much to the quality of this work. In addition I would like to thank my second and third advisors, Prof. P.B. Burrell and Prof. A. Murray. Their further criticisms and advice on literary style were much appreciated. All these three gentlemen responded admirably to their tasks.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>List of Tables</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>vii</td>
</tr>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td>I. International Economic Integration</td>
<td></td>
</tr>
<tr>
<td>A. Cooperation and Integration</td>
<td>1</td>
</tr>
<tr>
<td>B. Positive and Negative Economic Integration</td>
<td>5</td>
</tr>
<tr>
<td>C. Comprehensive, Partial, and Sectoral Economic Integration</td>
<td>7</td>
</tr>
<tr>
<td>D. Trade Liberation Integration and Production Integration</td>
<td>10</td>
</tr>
<tr>
<td>E. Which Type for LDCs?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Predicaments and Hopes for Integration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The Influence of the European Integration Movement</td>
<td>16</td>
</tr>
<tr>
<td>B. The Traditional Trade Approach to Economic Development</td>
<td></td>
</tr>
<tr>
<td>C. Development through Primary Production for Export</td>
<td>25</td>
</tr>
<tr>
<td>D. Development through Manufacturing for Export</td>
<td>42</td>
</tr>
<tr>
<td>E. Inward Directed Growth</td>
<td>48</td>
</tr>
<tr>
<td>F. The Necessary Compromise</td>
<td>53</td>
</tr>
<tr>
<td>G. The Desired Benefits from Integration</td>
<td>54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Static-Customs Union Theory, Dynamics, and Economic Integration Among LDCs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Static Customs Union Theory</td>
<td>67</td>
</tr>
<tr>
<td>B. Desired Integration Conditions of the Static Theory</td>
<td>74</td>
</tr>
<tr>
<td>C. The Implications of Static Theory for Integration between LDCs</td>
<td>78</td>
</tr>
<tr>
<td>D. The Unanswered Questions</td>
<td>79</td>
</tr>
<tr>
<td>E. The Problems with the Trade-Creation Trade-Diversion Analysis</td>
<td>81</td>
</tr>
<tr>
<td>F. Further Comments on Some of the Eleven Static Conditions</td>
<td>88</td>
</tr>
<tr>
<td>G. Protection or a Move Towards Free Trade?</td>
<td>99</td>
</tr>
<tr>
<td>H. Integration and Development on a Broader Front</td>
<td>103</td>
</tr>
</tbody>
</table>

```
IV. Potential Problems and Possible Solutions in Economic Integration Among LDCs

A. Polarization and Backwash ........................................ 112
B. Balanced Benefits, Reciprocity, and Transitional Problems ................................. 121
C. Tariff Revenues Under Integration ........................................... 134
D. Problems in Employing a Common Tariff Wall ........................................... 138
E. Cooperation in Development Planning and Activities ........................................... 145
F. The Need for the Elimination or Reduction of Indirect Trade Restraints .................. 162
G. The Need for a Payments Mechanism ........................................... 178

V. Further Matters of Economic Integration Between LDCs

A. Factor Mobility ................................................................. 192
B. Spatial Proximity, Communications, and Transportation ........................................... 197
C. Integration or Regional Development Banks ........................................... 215
D. Finishing Touch Industry Problems ........................................... 219
E. Problems Related to Pricing ........................................... 222
F. Integration and Foreign Investment ........................................... 224
G. Self-propulsion and Reversibility of Gains ........................................... 231
H. Non-Economic Factors and Economic Integration ........................................... 234
I. How and When to Begin ........................................... 240

VI. Conclusions ................................................................. 246

Appendix I - Economies of Scale ........................................... 258
Appendix II - GATT and Economic Integration ........................................... 286
Bibliography ................................................................. 292
### List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Export price indices of primary commodities and non-ferrous base metals, 1965-1968 and first half of 1969</td>
<td>32</td>
</tr>
<tr>
<td>2.</td>
<td>Terms of Trade. Index: 1963=100</td>
<td>38</td>
</tr>
</tbody>
</table>

**Table in Appendix I**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Summary Distribution of Economies of Scale in Basic Industrial Equipment</td>
<td>261</td>
</tr>
<tr>
<td>2.</td>
<td>Summary Distribution of Economies of Scale in Plant Investment Costs</td>
<td>263</td>
</tr>
<tr>
<td>3.</td>
<td>Industrial Scale Coefficients</td>
<td>264</td>
</tr>
<tr>
<td>4.</td>
<td>Requirements of fixed capital, labour, area, and electric power for various engineering enterprises of minimum profitable sizes</td>
<td>271-2</td>
</tr>
<tr>
<td>5.</td>
<td>Cost of Rolling Flat Products in Hypothetical Plants of Different Sizes</td>
<td>275</td>
</tr>
<tr>
<td>6.</td>
<td>Investment and production Costs and Target Selling Prices of Integrated Steel Plants Manufacturing Flat Products</td>
<td>276</td>
</tr>
<tr>
<td>7.</td>
<td>Investment and production Costs and Target Selling Prices of Integrated Steel Plants Manufacturing Non-Flat Products</td>
<td>277</td>
</tr>
<tr>
<td>8.</td>
<td>Economies of Scale in Fixed Investment</td>
<td>278</td>
</tr>
<tr>
<td>9.</td>
<td>Ammonia Production Costs</td>
<td>279</td>
</tr>
<tr>
<td>10.</td>
<td>Oil Refining Scale Coefficients</td>
<td>279</td>
</tr>
<tr>
<td>11.</td>
<td>Scale economics in Oil Refining</td>
<td>280</td>
</tr>
<tr>
<td>12.</td>
<td>Average Production Costs for Nylon 6 and Acrylic Filament Yarn</td>
<td>281</td>
</tr>
<tr>
<td>13.</td>
<td>Alumina Production Costs</td>
<td>281</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>14</td>
<td>Average Production Costs of Pulp and Paper Mills</td>
<td>282</td>
</tr>
<tr>
<td>15</td>
<td>Economies of Scale in Cement Production</td>
<td>283</td>
</tr>
<tr>
<td>16</td>
<td>Estimate of Cost per Kilowatt Installed in the Inga Hydroelectric Project, Democratic Republic of Congo</td>
<td>284</td>
</tr>
</tbody>
</table>
Introduction

The purpose of this study is to consider the benefits and costs likely to be incurred by less-developed countries (LDCs) undertaking various forms of international economic integration. The integration process is seen as a possible means of accelerating the rate of economic growth and development of the participant states beyond that possible through isolated action. The study does not focus on any one LDC grouping, nor on any one branch of theory or policy, but rather attempts to combine theory, policy, and insights into past integration experience in such a manner as to provide a comprehensive overview of the whole matter of international economic integration among LDCs. Since the physical, social, political, and economic conditions of less-developed countries vary so tremendously, the study has deliberately been given a broad-based orientation. It is hoped that by focusing attention on various problems or aspects of economic integration incurred in particular LDC integration movements that a greater insight will be developed in the area of economic integration between developing states in general. Consequently illustrative material is drawn from integration experience on five continents, rather than from any one particular LDC groups.

The main body of the study is divided into six chapters. The first outlines the basic types of international integration indicating some of the advantages and disadvantages associated with each. The question of why
LDCs would consider undertaking economic integration is
the subject of the second chapter and requires individual
studies of the three basic ways in which LDCs tackle the
dual problems of economic growth and development. These
studies outline the many problems incurred by LDCs in their
development efforts and provide a background against which
the benefits of economic integration become all the more
apparent. The third chapter deals with the theoretical
aspects of economic integration. Firstly, the static theory
is reviewed along with its implications for economic inte-
gration between LDCs. Then dynamic and long-run arguments
are introduced which place the analysis in a more appropriate
growth oriented light. Chapters four and five are aimed at
illuminating the various problems which may arise in inte-
gration movements among LDCs, and the nature and extent to
which some LDC governments will be required to act in the
integration process. Finally, chapter six contains a
summary of the main points developed in the study.

The position taken in the study is generally sup-
sportive of LDC integration endeavours, the view being that
with careful forethought, planning, and mutual cooperation
integration can greatly benefit LDCs in their development
efforts. However, since the potential for economic harm
from integration may be quite drastic for some LDCs in
certain circumstances, an effort has been made to illustrate
this and to provide possible preventative and, or corrective
solutions.
International economic Integration

(A) Cooperation and Integration

Economic relations between less-developed countries take a wide variety of forms with considerable differences in the nature and extent of state involvement. More simple forms include social, cultural, and business exchange programs; mutual consultation on common problems with the objective of exchanging opinions and ideas, but involving no commitment to act; and mutual consultation on planned activities in different economic areas. Higher forms of economic cooperation involve increasingly more significant state participation in areas of common interest. Such cooperation ranges from minor joint infrastructural projects, such as the construction of an international bridge; to concerted action in different international organizations such as the United Nations Commission for Trade and Development (UNCTAD), the tariff negotiation rounds under the General Agreement on Tariffs and Trade (GATT), and the various conferences held under the direction of the regional Economic Commissions of the United Nations (i.e., ECLA, ECA, and ECAFE). Trade agreements, long term purchase-and-sale agreements, and coordinated state action in the operation of commodity price agreements represent examples of even more significant economic relations. Still higher forms include technical exchange programs and coordinated research efforts; the joint exploitation of natural resources; and joint infrastructural projects of increasing magnitude and complexity,
ranging from the coordinated development of transport and communications links, to the joint development of river valleys and basins which may involve the coordination of irrigation schemes, flood control systems, reservoirs and other water level controls, hydro-electric schemes, and inland waterway developments. While these various forms of economic cooperation between LDCs are important for their economic well-being, the extent to which their economies are institutionally bound by such cooperation is usually considerably less than in the case of economic integration. International economic integration between LDCs may embody some or all of these forms of cooperation, but considerably more as well. Economic integration, in the trade liberation sense, involves the granting, by a state, of preferential access to its national market for the goods of partner states which reciprocate by granting corresponding preferences in their domestic markets. That is, each member-state of an integration agreement discriminates in its external trade in favour of its integration partners.

Professor Balassa has distinguished five basic forms of economic integration:

1. free trade area
2. customs union
3. common market
4. economic union
5. total economic integration.

As will be seen each consecutively higher form of economic integration embodies all of the lower forms with the addition of some further characteristic involving the further integration of the member economies.

A free trade area (FTA) is a union between sovereign states in which most if not all trade restrictions (tariffs, quotas, import licenses, etc.,) are removed on trade between member-states. Producers in each member-state have free access to the entire regional (union) market. Each state retains its own system of trade restraints with respect to the products of third countries.

A customs union (CU) is a union between sovereign states in which virtually all constraints on inter-member trade are removed, and in which a common system of trade restraints is adopted by the members for trade with third countries.

A common market (CM) is a union of states between which there is free movement of both commodities and factors. A common system of restraints is applied by the members to imports from third countries.

An economic union (EU), like a common market, has free movement of both commodities and factors between member-states, and employs a common system of trade restraints against the goods of third countries. In addition the member-states undertake to harmonize their social, monetary,
fiscal, financial, and counter-cyclical policies.¹

The ultimate form of economic integration is the state of total economic integration (TEI) which embodies all the characteristics of a common market combined with the existence of a supra-national authority. This authority devises social, monetary, fiscal, financial, and counter-cyclical policies which the national governments are bound to carry out. While the authority prevails over matters of an intra-regional nature, each member government retains sovereignty in its external (to the region) affairs.

It should be noted that while this classification is useful in clarifying our thinking on integration, it is not meant that economic integration between states must take one of these forms. In these definitions Balassa has deliberately focussed attention upon crucial aspects or characteristics found in different forms of integration, i.e., free trade in commodities between members, a common system of tariffs and other trade restraints, factor mobility between member-states, and varying degrees of policy harmonization and coordination. Most, if not all current examples of economic integration take the form of some intermediate integration state and satisfy no one form's strict characteristics. As will be seen later, the formation of a free

¹Note that the harmonization of policy permits member-states a greater degree of individual flexibility in their policies than does the coordination of policies.
trade area or customs union between sovereign states usually requires varying degrees of policy harmonization in different areas from the outset. In the case of integration between LDCs the inclusion of a supra-national body or secretariat with varying degrees of power is often a pre-requisite. The basic forms serve principally as a means of organizing one's thinking and as points of reference.

(B) **Positive and Negative Economic Integration**

The lower forms of economic integration (i.e., FTA, CU, and CM) are often referred to as "negative integration", while the higher forms (EU and TEI) are referred to as "positive integration". The idea underlying this general distinction is that while the higher forms require positive action on the part of the member-states with respect to various types of policy harmonization or coordination in their individual economic activities, the lower forms are generally permissive in nature and supposedly require merely a reduction in government intervention with respect to the movement of commodities and factors between member-states. This type of reasoning is erroneous. It is true that the higher forms of integration generally involve a much greater degree of cooperation between member-states over an ever

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wider range of economic activities, ceteris paribus, but to consider the lower forms as basically permissive is to fail to realise the difficulties involved in their formation. It will be seen later in the paper that member-governments have to take a considerable amount of positive intervention in the transition from autonomy to union so as to buffer the serious short run repercussions which arise to varying degrees in each member-state. The adjustments to be made to deal with the loss of state revenues from inter-member trade, the efforts involved in the adoption of a common system of trade restraints, and the adjustment of financial institutions and regulations to facilitate the free mobility of capital within the union, can hardly be regarded as permissive. Furthermore, when integration is undertaken between states of different size and, or at different stages of development and, or with different growth potentials, the extent of government intervention necessary increases, a point which will be further discussed later in the paper. It may be that the formation of an FTA between a group of small, backward countries requires relatively more government intervention than would the formation of a CU between a group of developed countries (DCs) of similar size and stage of development. It is best to realize from the outset that any form of economic integration will require a considerable amount of effort by the member-governments if it is to be a viable and satisfactory undertaking.
(C) Comprehensive, Partial, and Sectoral Economic Integration

The basic forms of economic integration are comprehensive in nature in that they free trade in virtually all commodities rather than for the products of particular industries or sectors. However, it should be realized that comprehensive integration is not always the optimal form for individual countries at particular points in time.

During the process of transition from autonomy to union various transitional forms of economic integration are developed. For some commodity groups free trade is undertaken immediately upon the entering into effect of the integration agreement, while for others free trade is achieved either through successive proportional reductions of restraints at periodic intervals, or through periodic negotiated reductions on a commodity by commodity basis. Still other commodities may be indefinitely withheld from free trade. A transitional form of particular significance is "partial economic integration."¹ This form of integration permits one way discrimination in inter-member trade and is generally employed as a means of enabling an economically weaker or less developed integration-member to narrow the inter-member

¹Note that some authors apply the term "partial economic integration" to refer to what this writer believes is better regarded as "sectoral economic integration", e.g., Jan Tinbergen, International Economic Integration, Amsterdam, Elsevier, 1954, p121, middle. The usage of "partial economic integration" employed here is similar to that of C.A. Cooper and B.F. Massell, "Toward a General Theory of Customs Unions for Developing Countries," Journal of Political Economy, VOL LXXIII NO.5 1965, pp.461-76.
competitive or development gap. The economically stronger member-states grant immediate free entry to the commodities of the weaker member-state to their domestic markets, but do not secure reciprocal treatment for their exports to the weaker member. This type of integration is currently being employed by the European Economic Community (E.E.C.) for the transition to full integration membership of Greece and Turkey over a twenty-two year period.  

Another form of economic integration of a non-comprehensive nature is "sectoral economic integration". This selective form of integration restricts free inter-member trade to the products of a particular industry or sector of their economies. A good example of this form is the European Coal and Steel Community (E.C.S.C.), a forerunner of the E.E.C. in which the six member-states undertook free trade in coal and steel. A variety of arguments have been put forward in favour of "sectoral integration" including;

(1) that sectoral integration is much easier to negotiate than a comprehensive form due to the fewer policy problems involved and to

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Some states may become associates to an integration agreement without ever becoming full members. In this case they receive the general economic benefits and commitments, but not the full member powers or obligations. A good example of this is the associate membership to the E.E.C. of eighteen formerly French or Belgian African states under the Second Yaounde Convention, and of the three East African states under the Arusha Convention. The terms and duration of associate membership may vary considerably between individual or groups of associate members.
the smaller potential for loss. It may thus be used on a trial basis as an indicator of the desirability of further integration.

(2) it is a means of initiating comprehensive integration which enables the member-states to obtain experience in integration industries beneficial in the handling of comprehensive integration.

(3) successive sectoral integration may be a more manageable way of achieving comprehensive integration.

The main problem with "sectoral integration" is that it has a tendency towards disequilibrium. Those member-states with higher wage and price levels and, or a less efficient industry are placed at a competitive disadvantage. Imports of the protected product from low cost producers may displace domestic products causing a serious cut back in production in the industries of the high cost members. It is this tendency which Sannwald and Stohler regarded as a built-in dynamism conducive to further, more comprehensive integration.\(^2\) The need to reduce the general wage and price level is assumed to lead to demands for further integration of the rest of the economy. The longer "sectoral integration" is retained the greater will be the damage to the integrated industry of the high cost members. Comprehensive integration

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achieved through successive "sectoral integration" is likely to be a more costly and much longer transitional process than would have been the case had the member-states agreed to adopt one of the five basic forms through a process of phased trade liberations. Also, GATT permits the granting of trade preferences only in the case of free trade areas or customs unions of a comprehensive nature, or in transitional forms leading to the creation of such an FTA or CU. Thus, sectoral integration would have to be undertaken in the context of being a transitional form leading to the formation of an FTA or CU within the prescribed "reasonable length of time."

(D) Trade Liberation Integration and Production Integration

There are two basic approaches to economic integration between states. The forms which have been introduced so far are based on the integration of the markets of the member-states. This is achieved through the phased liberation of inter-member trade, hence the classification "trade liberation integration." This approach concentrates on the inability of national markets to support a desired greater variety of economic activities. The narrower national market limits the extent to which Adam Smith's division of labour and specialization can be pursued. The larger union market can support a greater variety of activities, and, through the rationalization of union production,

1Note that higher integration forms fulfill the CU requirements of GATT.
enables each activity to be undertaken in a more efficient manner.

A second basic approach to economic integration is that of "production integration" as advocated by Havelock Brewster.¹ This approach concentrates on the inadequacy of national resource bases with respect to supporting a desired greater level of economic activity. The integration of member-state resource bases through a wide system of bilateral agreements is aimed at securing a regionally optional allocation of resources for domestic industries. These agreements enable each member-state to pursue its comparative advantage to a further degree than would be possible either on the basis of national resource endowments alone, or due to the need to produce a wide variety of products for the national market for various self-sufficiency reasons. Presumably any constraint due to the size of the national markets would be overcome by agreements on output marketing between the member-states.²

Thus, we see that the two basic approaches concentrate on different aspects of national frontier constraints on the range of activities which are economically feasible. The "trade liberation" approach tackles the problem principally from the demand side, while the "production integration"


²Note that production integration may be principally export oriented in some cases and aimed at increasing the "regional value-added" through further processing.
approach concentrates on the supply aspects of the problem. "Production integration," like "trade liberation" integration, by being extended to a varying number of industries and sectors, can also be adopted over a wide range of degrees from one industry or sector to quite comprehensive coverage of the various industries and sectors of the member states. Thus, "sectoral economic integration" and "sectoral production integration" are corresponding forms of "trade liberation integration" and "production integration", respectively, the former stressing relief of the demand constraint, and the latter the relief of the production (supply) constraint.

1 A noteworthy example of "production integration" is the Regional Co-operation for Development (RCD) between Turkey, Pakistan, and Iran. This integration project began in June 1964 and was originally aimed at "production integration" in a few industries including bank note paper, carbon black, and aluminum reduction. Progress in this endeavour encouraged the extension of integration to other industries, with particular interest being placed on "production integration" in basic, capital, large scale industries. Integration is extended on a project by project basis which may be undertaken bilaterally or trilaterally. These joint industrial projects include market sharing agreements employing purchase and sale trade agreements of varying duration, some being short-term (one or two years), others being long-term (five years or more). The principal objectives of RCD are increased communication, cooperation, policy harmonization, coordination of development efforts, and joint industrial projects between the member-states. For a brief discussion of RCD see ECAFE, "Sub-Regional Plan Harmonization: A Case Study of the Regional Co-operation for Development "(RCD) (Turkey, Pakistan and Iran)", Economic Bulletin for Asia and the Far East, VOL. XVIII NO.1, 1967, pp.22-36.

2 The Canada–United States Auto Pact is an imperfect form of economic integration and embodies some of the characteristics of "sectoral economic integration" and "sectoral production integration". Certain duties are waived by both governments, but only in the case of the imports and exports of specific auto producers (i.e., American Motors, General Motors, Ford Motor Company, and Chrysler). The agreement
The "trade liberation" approach to integration generally requires the concession of various sovereign rights on a wider scale than "production integration". "Trade integration" generally deals with trade classification categories of goods, and applies to all member-producers. However, "product integration" involves specific producers and plants, and consequently involves a form of trade discrimination between member states on a selective basis. It should be noted that the specific government commitments and obligations of "production integration" may be extensive if the principal beneficiaries are state enterprises or industries of high national importance (i.e., leading industries or principal foreign exchange earners). Also, in certain cases the more qualified is "trade liberation integration", the less indiscriminate it becomes.

While the "production integration" approach permits member-governments to be more selective in making integration agreements, both with respect to the length and details of the agreement for different industries, it may also restrict the overall impact of integration by producing a smaller number of regionally integrated industries.1

is tailored to rationalize the production activities of the companies concerned, not to liberating trade in all automobiles and parts.

1The validity of this statement depends on the degree of economic importance and activity of the public sector relative to the private sector.
"Production integration" constrains the activities of the private sector in developing regionally optimal industries by requiring them to obtain state support for the agreements required. The existence of specified time limits on these agreements and the requirement of continued government support by each signatory makes investment in such industries less desirable than would be the case under integration of the "trade liberation" type where government ties are less restrictive, and where the governments are forced to consider the aggregate integration costs and benefits rather than the case of the particular firms in question. "Production integration" may, however, be a very attractive approach to integration for LDCs who might disfavour the usually greater loss of control under comprehensive "trade liberation integration". We will return to this point in the later discussion of a gradual approach to integration.

However, from hereon, unless otherwise specified, references to economic integration will be directed to consideration of the various "trade liberation" forms.

1 An example or illustration of this is the Auto Pact, the continued existence of which requires the settling of continued inter-government disputes over net trade effects (surplus or deficits) and the various safeguards involved.

2 See Chapter V, (I) How and When to Begin.
(E) Which Type for LDCs?

The question now arises as to which type and form of economic integration would be the most appropriate for LDCs? The answer to this question depends on two sets of factors. The first is the particular situations of the potential member-states. The second is what these states hope to achieve through economic integration, a question which is the subject of the second chapter of this paper.
(II) Predicaments and Hopes for Integration

(A) The Influence of the European Integration Movement

Economic integration is not something new to the LDCs for many colonial powers employed different forms of integration as a means of easing the problems of administering their overseas possessions. The desire to reap economies of scale through the centralization of administrative duties and in the provision of essential services, and to link the communities of contiguous territories lead to the creation of various forms of federation, some of which have survived independence. However, these forms of integration were more imposed than adopted by the indigenous people.

In the postwar period a large number of LDCs have achieved independent statehood. Many found that their small economic and physical size made the provision of traditional government functions a difficult task. They could no longer count on grants to cover their development plans or trade deficits, and the weakening of ties with particular developed countries (DCs) often meant that loans were no longer as easy to secure, and often more costly. For some LDCs size factors proved to be more of a constraint to development than many of the independence leaders had imagined. Independence did not always give rise to a development boom. The desire to reduce dependence on any

\footnote{For instance, South Africa, Lesotho, Botswana, and Swaziland have been united in a customs union since 1910. This union was renewed in 1969-70 with increased concessions to the three smaller member-states.}
one DC lead to efforts to create new market ties with other DCs. At times this meant increased competition with other LDCs, some of which received preferential treatment due to their past relations with particular developed states. In some cases LDCs, on gaining independence, sought to assert their independent status by reducing ties with other LDCs which had been developed during the colonial period. However, in numerous cases such action proved to be very costly, and in certain cases was later abandoned in favour of the re-institution of close ties with neighbouring LDCs.\(^1\)

The recent interest of the independent LDCs in economic integration was to a considerable extent spurred by the postwar integration movement in Europe which by the late 1950's had lead to the inclusion of practically every European state in one integration agreement or another.\(^2\)

It was reasoned that if the European states, with their vast capital endowments and large domestic markets, regarded their individual markets as being too small and lacking adequate competition to permit the full exploitation of their comparative advantages, did this not apply even more so to the case of the LDCs, many of whose cash

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1 A notable example of this phenomena are the former French colonies of West and Central Africa. For further details see R. Julienne's "The Experience of Integration in French-Speaking Africa" in A Hazlewood's (ed.) African Integration and Disintegration, London, Oxford University Press, 1967, pp.339-53.

2 The EEC, the European Free Trade Area (EFTA), and the Council for Mutual Economic Assistance (COMECON).
markets are no larger than that of a moderately sized European town. To appreciate why the LDCs were so readily attracted by the idea of economic integration it is first necessary to consider their past experiences and the problems which they have encountered in their efforts to develop. Once these problems are recognized, the desired benefits of economic integration become more evident.

(B) The Traditional Trade Approach to Economic Development

The fact that international trade is essential for the development of most LDCs is inescapable. The great majority depend on trade as a means of securing hard foreign exchange necessary for the purchase of essential or strategic input imports, maintenance imports, intermediate products, capital equipment, and essential specialist services. Such products cannot be produced domestically due to either the limited demand for any particular commodity, the lack of the necessary materials, or to a lack of the high level of technical competence required for the production of such "technology intensive" goods. Foreign aid from the developed countries is far too insufficient to finance such imports, while foreign direct investment is mainly directed to either trade-oriented primary production or to "finishing touch" industries which import the majority of their inputs. Thus,

1Arthur Hazlewood regards this as being the case for the majority of African Countries. See his "Problems of Integration among African States" in his African Integration and Disintegration, op.cit., p.9, middle.
the majority of LDCs have no real alternative but to trade in order to grow and develop.

Traditional trade theory states that countries should specialize in the production of those goods in which they have a comparative advantage. In Heckscher-Ohlin terminology this means that countries should concentrate on producing those goods which require relatively greater inputs of the relatively more abundant factors. These goods they can then exchange for others in the production of which they have a comparative disadvantage. This type of reasoning was extended to the classical counterpart of development theory. LDCs could develop most efficiently by specializing in primary production, extractive industries, and labour-intensive activities, the products of which were required by the more developed countries who were willing to trade manufactures to acquire them. In this manner the LDCs could acquire some of the benefits of development through trade and trade-related activities.

Professor Haberler concentrated on the benefits derived from trade in his defence of the traditional trade theory. The benefits include the provision of those commodities and services which have already been outlined above as being essential for LDCs development and growth. That trade between more and less developed countries has an educative effect through the dissemination of knowledge;

the transmission of ideas, tastes, and preferences; the introduction of new products, skill requirements, and production structures; and various influences on attitudes towards work, leisure, and the accumulation of material goods; etc., is understood. The point is that these benefits of trade are not strictly dependent on the content of the trade, though the extent of these benefits and the content of trade are probably functionally related, but rather on trade per se. The added difficulty here is where to draw the line between those benefits strictly attributable to trade activities and those due to contact in general. That trade influences the extent of international competition is undoubtedly true, but it is not always true that these influences are necessarily conducive to increased international competition. It is also necessary to keep in mind that competition can be constructive and, or destructive, and that the interaction of market forces, i.e., competition to varying degrees, is not necessarily conducive to economic development in less developed areas, but may lead to their stagnation due to their inability to compete in those international markets which hold the greatest long run development potential.

Many of the benefits of trade outlined above are becoming increasingly obtainable by other means. A noteworthy example is the transmission of skills and technical know-how. These beneficial effects are increasingly being acquired through various technical assistance programs sponsored by the governments of the DCs, various international
agencies, and by the LDCs themselves. However, ignoring this fact for the moment, it might be asked where these various benefits of trade figure in the traditional trade theory. When thinking about the traditional trade theory such things as identical products, identical production functions, equality of factors, equality of production choice given equal available resources, and the old "two factor-two commodity-specialization and exchange model" come to mind. More elaborate and flexible models are available, but they all to varying degrees contain similar rigid qualifying assumptions. The question is where do all the benefits, which in reality are obtainable to varying degrees through international trade, fit into the traditional trade models and theory? It appears that in general they do not. The need to obtain the various benefits of trade does not require strict adherence to the static comparative advantage theory of trade.

If one is to be realistic it is necessary to discard the static Heckscher-Ohlin concept of comparative advantage and to adopt the concept that Viner called a dynamic setting. Comparative advantages change and are therefore "changeable". There are differences in the quality of factors which can change over time, for instance education, technical training, and "learning by doing" increase the productivity of labour;

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1 My views in this area owe much to H. B. Chenery's "Comparative Advantage and Development Policy", *The American Economic Review*, VOL. LI No.1, 1961, pp.18-57, from which the reference to Jacob Viner was adopted.
infrastructural development and applicable technical changes in the extractive sciences change the body of "exploitable natural resources"; and changes in loading and ocean shipping techniques, and in the location of "penetrable markets", change locational advantages, or rather the determinants upon which they rest. Often the comparative advantage of a country in a particular activity rests upon the scale on which it can be undertaken, which in turn partially depends on the size of available penetrable markets. Economies of scale exist. Often comparative advantage hinges on the extent to which such economies can be economically exploited. 1

External economies also exist and may significantly influence an LDCs comparative advantages. Such economies are particularly significant in the development process of numerous LDCs and are often linked with economies of scale in different economic activities. Furthermore, factors, like many commodities, may be complementary in that an increase in the productivity of one factor may precipitate an increase in the productivity of another, i.e., there is dynamic interdependence among factors. The body of applicable technology changes over time, as does the extent of its applicability in different activities. The point being developed here is that comparative advantages change over time, and that the development path which is statically optimal (i.e., endorsed by static comparative advantage criteria) at one point in time may differ considerably from that of a later point.

1We shall return to this subject later.
in time. The essence of this line of reasoning is that comparative advantages can be cultivated to varying degrees, a fact of fundamental importance to the later discussion of the relationships between economic efficiency, development, and integration.

It is realized that the "concept" of comparative advantage is of fundamental importance, particularly when considering the problem of accelerating the development of LDCs. Obviously, countries have comparative advantages and disadvantages in different economic activities. Some LDCs have pronounced comparative advantages in the production and extraction of particular primary products, such as Brazil for coffee; Central America for bananas; Venezuela, Libya, and Kuwait for oil; Surinam, Guyana, and Guinea for bauxite; and the tropics in general for strictly tropical foodstuffs. These comparative advantages may dwindle or increase over time. The point is that one may accept the concept of comparative advantage as a useful tool for development purposes, but dispose of the "ideal implications" on which too many economists have dwelled (except in the case where the theoretical assumptions are approached). The theorem has the shortcoming of much of traditional theory, that of a preoccupation with supply aspects to the neglect of demand factors. While LDCs may lack major alternatives to special-

1These ideal implications include a movement towards factor-price equalization through trade in commodities, the optimal condition of free world trade, and various efficiency and utility judgements with respect to trade and protection.
ization in the production of primary products in the short
or medium term, it may well be to their long run advantage
to begin cultivating economic activities which have a greater
long run development potential. Romney Robinson has put for-
ward the argument that the "doctrine of comparative advantage"
is more useful in explaining where a country has been than in
indicating where it might go.\(^1\) Factor endowments change due
to technical change and factor mobility, trade oriented
capital formation, and the importation of intermediate goods
which Robinson points out are hard to distinguish from
factors. From this he concludes that it may be that trade
explains factor endowments rather than factor endowments
explaining trade. Certainly static comparative advantage
trade theory is of only very limited use in development
planning.

The late Ragnar Nurkse pointed out that the LDCs
have three basic choices in the type of development approach
to be adopted;

1. increased specialization in primary
   production for export to the DCs.

2. production of manufactures for
   export to the DCs.

3. producing manufactures for
   domestic markets.\(^2\)

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\(^1\)Reviewed by C.P. Kindleberger in his Economic Development,

\(^2\)Ragnar Nurkse, Patterns of Trade and Development, Wicksell
Lectures, Stockholm, 1959, p.48, middle.
These three alternatives may be combined to varying degrees in order to maximize growth potential. In the following three subsections each of these alternatives will be reviewed individually, raising the particular problems associated with each. For many LDCs the three basic approaches, when undertaken in watertight compartments by individual LDCs, fail to provide a satisfying or adequate rate of growth and development. It is hoped that by concentrating on the problems encountered in the three basic approaches that the benefits of economic integration will become all the more apparent.

(C) Development through Primary Production for Export

The development path endorsed by classical trade theory was that of specializing in the production of those goods in which a country had a comparative advantage, and exchanging those goods through international trade for others in the production of which the country had a comparative disadvantage. Translated this usually implied that LDCs should specialize in the production of primary products for export, an "outward-looking" development process in which the LDC was dependent on supplying the markets of DCs at competitive world prices. This trade concentration would bring with it the "carry-over" development benefits touched upon in the previous subsection. This development approach proved quite successful in numerous cases in the nineteenth century as LDCs adopted new products and crops in heavy demand by the
metropolitan centres. This was particularly true for those LDCs in temperate zones who specialized in the production of staples such as the United States (in cotton, wheat, and timber), Canada (in wheat and paper products), Sweden (in lumber), Denmark (in pork and dairy products), Australia and New Zealand (in wheat, wool and mutton), and so on. These countries financed much of their initial development in this manner. However, such export oriented growth did not always stimulate economic development on a wide front, but rather lead to the formation of a foreign enclave within the traditional economy between which economic relations were often quite limited. Within the enclave economic activity was concentrated in either production for export, the servicing of export industries, or various consumer oriented activities. The resultant development was generally "lopsided" in nature and generated few spread effects to the traditional sectors. As D.C. North has pointed out, this concentration on exports often lead to a preoccupation with export related matters by the LDC governments to the neglect of other development alternatives. However, in many cases the LDCs were faced with a choice between "lopsided" development and no development, so that specialization in primary production for export was a decided boon to their development.

That many LDCs have benefitted through primary production for export is undeniable, that numberous will continue to do so in the twentieth century is also undeniable, but specialization in primary production for export is not necessarily the optimal long run path for the development of all LDCs.

Currently LDCs derive some four-fifths of their export earnings from trade in primary products, the principal consumers of which are the DCs. The foreign exchange obtained from this trade is the principal source of finance for the LDCs development. Their rate of growth, extent of diversification, rate of structural change, and ability to develop are dependent to varying degrees on the developed country markets for primary products. Such dependence is not necessarily "bad" per se as long as the DC markets grow at a sufficient rate to enable the LDCs to meet their development potential. In the nineteenth century the rapid industrial development of western Europe, and particularly of Britain, necessitated dramatic increases in their primary import levels. The response to this strong growth in demand was such that for many LDCs primary trade acted as an "engine of growth", a fact which many economists interpreted as validating the classical theory of trade according to

1 Of total LDC exports over 1965-67 80.3% were primary products (i.e., food - 27.3%, raw materials - 21.3%, and fuels - 31.7%). Source, World Economic Survey, 1968, New York, U.N. - Department of Economic and Social Affairs (UN-DESA), 1970, Table 22, p.60.
comparative advantage, i.e., the static analysis. In the twentieth century, particularly after WWII, the rate of growth of DC demand for primary products began to slacken, or more correctly it failed to keep pace with the LDCs supply potential.\footnote{ibid., p.55, middle. Note that this demand shortfall phenomena occurred in many, but not all primary product markets.} While the demand for many primary products has been very healthy (such as oil, certain minerals, and some foodstuffs); the demand for some products has faltered seriously. The demand for a large number of primary goods is price inelastic, a fact which requires a vigorous increase in the extent of the market (i.e., an outward shift of the demand curve) if demand is not to act as a constraint on the growth of primary producers. The fact that the demand for many primary products is also income inelastic compounds the problem. Studies reveal that for food, beverages, and tobacco (SITC 0+1), and for crude materials, oils, and fats (SITC 2+4), the developed market economies' coefficients of import elasticity are .6 and .5 respectively.\footnote{UN-DESA, World Economic Survey, 1968, op.cit., Table 20, p.58. The market outlook of primary fuel exporters is more promising with a DC coefficient of import elasticity of 2.4.} If Engle's Law, according to which the proportion of income expended on food declines as income rises, is true then the inadequacy of demand for many primary foodstuffs may well be a permanent characteristic of DC markets with respect to LDC supply potential. Some developed countries aggravate this market
constraint problem by pursuing protective agricultural policies and discriminating between products.\footnote{For a good discussion of these problems, as well as a detailed discussion of LDCs primary production for export in general, see J. Pinche's \textit{Trade, Aid and Development: The Rich and Poor Nations}, New York, McCraw-Hill Book Company, 1967, chap. 7, and especially pp. 235-43.}

The fact that different crops grown under different climatic conditions may yield the same end product has resulted in competition between DC and LDC producer's in world markets through specialization in the production of substitute produce. A noteworthy example is vegetable oil which can be obtained as palm oil (from a tropical crop), olive oil (from a subtropical crop), or soya bean oil (from a temperate crop). The United States until recently was a major importer of vegetable oils. It is now a major world competitor exporting soya bean oil.

The rising share of services in the demand of the developed economies and their changing production orientation away from light manufactures towards heavy and complex industries, the final products of which have a relatively lower raw material content, works against the market expansion of primary exports.

Technological change in industrial production techniques has been of a raw material saving nature in a number of industries. A new process of tin-plating steel has made it possible to apply a plating layer only one molecule thick. A.M. Kamarck estimates that this prevented any substantial
growth in the demand for tin for a decade or more. Many primary products have been and continue to be displaced by synthetics to varying degrees. This is true for example of crude rubber, silk, indigo, nitrates, jute, hemp, vegetable oils, hides, skins, and chicle. The growing DC phenomena of recycling and the creation of revolving stocks of metals of growing significance reduces the need of DCs to meet all metal requirements from current production and imports. Kamarck says that there is a counterpart to Engels Law for raw materials in manufacturing according to which as the value of a particular manufactured product increases with its improvement the proportion of total cost represented by raw materials tends to go down. All of these factors work to constrain the DCs' demand for the LDCs' primary exports, a condition which in turn impairs their ability to grow and develop.

As a result of the combination of inelastic demand and excess capacity in the LDCs the prices of some primary products have declined secularly. The prices of many, if not most, primary exports fluctuate in a cyclical manner.


2N. Nurkse, Patterns of Trade and Development, op.cit., p.123; M. Yudelman and F. Howard, Agricultural Development and Economic Integration in Latin America, London, George Allen and Unwin Ltd., 1970, pp.129-30. Yudelman also notes that British Petroleum is currently undertaking the production of animal feed of a high protein nature which is derived from petroleum by-products. This may eventually be extended to production for human consumption (p.130).

3A.M. Kamarck, The Economics of African Development, op.cit., p.152, middle.
in accordance with general demand conditions in the principal market economies. Myrdal has noted that downward price fluctuations are often aggravated by volume reductions in total exports which make the LDCs' cyclical fluctuations in foreign exchange earnings all the more pronounced.  

Over the period 1953-61 the export prices of palm kernals, coffee, cocoa, and sisal showed an average yearly percentage deviation from the trend of 9%, 9%, 18%, and 24% respectively. In 1962 the world producers sold one and a half times as much coffee as they had sold in 1954, but their foreign exchange earnings dropped by one third. Over the period 1963-65 the prices of olive oil, cocoa, sisal, and sugar fell by 28%, 34%, 38%, and 47% respectively. Table 1 further illustrates the instability of the export prices of many primary products, though the sample tends to be favourable on the whole. These large price swings may lead to fluctuations in the level of incomes and economic activity in the LDCs. Since the margin of consumption above subsistence


2A.M. Kamarck, The Economics of African Development, op. cit., p. 153. Note that some of this price fluctuation may be traceable to the high primary prices which resulted from the Korean hostilities.

3Ibid.

4See, Table 1.
### TABLE 1

Export price indices of primary commodities and non-ferrous base metals, 1965-1968 and first half of 1969

<table>
<thead>
<tr>
<th>Commodity Group</th>
<th>Index 1963-100</th>
<th>Index first half 1969 (first half 1968=100)</th>
<th>AVERAGE ANNUAL PRICE DEVIATION 1965 - 1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary commodities</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Food</td>
<td>103 104 101 100</td>
<td>102</td>
<td>1.7</td>
</tr>
<tr>
<td>Cereals</td>
<td>103 106 104 102</td>
<td>101</td>
<td>2.3</td>
</tr>
<tr>
<td>Wheat</td>
<td>99 104 106 102</td>
<td>100</td>
<td>3.7</td>
</tr>
<tr>
<td>Rice</td>
<td>95 102 103 97</td>
<td>102</td>
<td>4.7</td>
</tr>
<tr>
<td>Maize</td>
<td>103 108 125 137</td>
<td>94</td>
<td>11.3</td>
</tr>
<tr>
<td>Beverages</td>
<td>104 105 99 89</td>
<td>104</td>
<td>5.7</td>
</tr>
<tr>
<td>Coffee</td>
<td>111 113 111 111</td>
<td>105</td>
<td>1.3</td>
</tr>
<tr>
<td>Tea</td>
<td>124 120 112 112</td>
<td>97</td>
<td>4.0</td>
</tr>
<tr>
<td>Cocoa</td>
<td>101 104 104 91</td>
<td>94</td>
<td>5.3</td>
</tr>
<tr>
<td>Meat</td>
<td>66 94 110 129</td>
<td>147</td>
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</tr>
<tr>
<td>Beef</td>
<td>126 125 117 115</td>
<td>105</td>
<td>3.7</td>
</tr>
<tr>
<td>Mutton &amp; Lamb</td>
<td>135 130 120 121</td>
<td>104</td>
<td>5.3</td>
</tr>
<tr>
<td>Dairy products</td>
<td>127 119 114 105</td>
<td>108</td>
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</tr>
<tr>
<td>Sugar</td>
<td>113 112 117 107</td>
<td>97</td>
<td>5.0</td>
</tr>
<tr>
<td>Other food</td>
<td>53 53 55 56</td>
<td>118</td>
<td>1.0</td>
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<tr>
<td>Agricultural non-food</td>
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<tr>
<td>Fats, oils &amp; oil-seeds</td>
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<tr>
<td>Olive oil</td>
<td>104 96 96 96</td>
<td>104</td>
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</tr>
<tr>
<td>Copra</td>
<td>114 102 106 95</td>
<td>95</td>
<td>5.3</td>
</tr>
<tr>
<td>Coconut oil</td>
<td>72 72 75 74</td>
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<tr>
<td>Ground-nuts</td>
<td>118 105 121 142</td>
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<tr>
<td>Ground-nut oil</td>
<td>118 110 103 86</td>
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<td>18.3</td>
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<td>Palm kernels</td>
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<td>120 103 103 111</td>
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<td></td>
<td>1965</td>
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<td>1967</td>
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<td>Palm kernel oil</td>
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<td>127</td>
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<td>Palm oil</td>
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<tr>
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<td>Soya bean oil</td>
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<tr>
<td>Cotton-seed oil</td>
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<td>Jute</td>
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<td>Wood and wood pulp</td>
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<td>108</td>
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<td>Bauxite</td>
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<td>Copper ore</td>
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<tr>
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<td>130</td>
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</tbody>
</table>


\(a\) Preliminary.

Taken from the World Economic Survey, 1968, p. 117.
requirements is often quite small the brunt of any fall in export earnings is born by the LDCs development programs.\footnote{The extent of impact, if any, will depend upon the particular LDCs foreign exchange reserves, credit position, and the financial nature of the various projects and programs.} Such fluctuations make development planning both difficult and tenuous, requiring repeated revision and making the undertaking of major projects somewhat risky. The instability of export earnings and development expenditures may in turn make governments stabilization policy more difficult to implement effectively; a situation favouring speculation and capital flight. Various schemes may be employed to stabilize an LDCs development and growth, such as counter-cyclical export taxes, foreign exchange buffer reserves, the setting of a fixed export price for producers, and so on. However, the need to develop as fast as possible disfavours such schemes.

Many LDCs depend on exports of only a few primary products, the sale of which is concentrated in only a few principal markets. This type of development under fluctuating export prices is of debatable long run viability. The LDCs have veritably no influence over the demand for their exports, and very little control over the supply placed on world markets despite various commodity agreements. Various unforeseeable factors such as political unrest, strikes, cave-ins, adverse climatic factors, pestilences, blights, and so forth make the control of market supplies difficult. The lack of contact between producers, and uncoordinated planting...
and capacity installation make coordinated production very difficult. The lack of influence over primary export prices encourages the maximization of production in an effort to overcome the possible effects of low prices, but this in itself is often self-defeating for if applied on a wide scale it will drive down world market prices even more when ever the products demand is inelastic. This may even lead to a diminuation of the total cash market. It is true that while the demand for a primary export may be inelastic, the demand for a particular LDC's exports may well be elastic. However, the gains of one LDC will only be at the expense of another. Obviously this is no solution to the basic problem faced by some LDCs.

The problem of primary price instability would not be as serious if the LDCs had a sufficient variety of factor endowments to permit a changeover to alternative primary activities. However, this is not always possible. For a greater number of the LDCs factor endowments are notably skew favouring specialization in a narrow range of primary products. This is particularly true for the small (in area) LDCs whose "micro economies" are typically highly specialized. Such economies may import instability through the trade cycles for their primary exports. Kindleberger has stressed that

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some LDCs are in a "take it or leave it" position as far as the prices of their exports are concerned:

If the resources of underdeveloped countries are relatively fixed, for example, the terms of trade can turn in favor of them or against, but they cannot do anything about it. The position is unfavorable especially if supply elasticities are asymmetrical; i.e., if entry is easy into existing lines, but exit is difficult because resources are unable to shift into new lines. In these circumstances, the terms of trade will decline in the long run, because underdeveloped countries will respond to an improvement but be unable to respond to a decline.

This "locked in" nature of specialization in some primary products becomes even worse when the LDCs are unable to respond immediately to strong demand conditions as in the case of tropical tree crops. The conditions of lengthy germination periods and uncoordinated planting make for lengthy periods of high prices, during which supply cannot be expanded adequately, followed by protracted periods of low prices due to excessive response to the previously high world prices.

The United Nations has estimated that the LDCs' terms of trade have undergone a secular decline over the time period 1955-68 as indicated in Table 2. While the terms of trade have not declined for all regions or for all LDCs, it is becoming increasingly obvious that trade in primary products is not the optimal long run approach to

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economic development for a large number of LDCs currently following this path.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DCs</th>
<th>LDCs</th>
<th>LATIN AMERICA</th>
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<tbody>
<tr>
<td>1955</td>
<td>95</td>
<td>115</td>
<td>122</td>
</tr>
<tr>
<td>1960</td>
<td>99</td>
<td>103</td>
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<td>1964</td>
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<td>101</td>
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<tr>
<td>1968</td>
<td>101</td>
<td>97</td>
<td>98</td>
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</table>


In a number of LDCs, specialization in the production and export of primary products has yield only limited "carry-over" effects to the traditional economy. H.W. Singer has contended that it is wrong to regard much foreign investment in LDCs primary sectors as being foreign. The reasoning behind this view is that the multiplier effects of the initial investments, that is the "cumulative additions to income, employment, capital, technical knowledge, and growth of external economies" for the most part took place in the DCs rather than in the LDCs. Such investment was foreign only in the locational sense of the initial primary activity, not in the economic sense of the location of the multiplier effects. Thus, the LDCs, by specializing as the "tail end"

2 Ibid., p.172, top.
of vertically integrated industries in which the major portion of the value-added was added elsewhere, failed to benefit from an extensive "Carry-over". In some cases where the "carry-over" was considerable the phenomena of the "dual economy" was reinforced.

The concentration on primary specialization has encouraged structural imbalance, i.e., a pronounced mismatch between the patterns of production and consumption, in the economies of some LDCs. Such imbalance is not bad per se so long as trade permits the two to be balanced with little strain. However, when the terms of trade between the commodities exported and imported deteriorate, and the growth of export earnings lags behind the growth of domestic demand and development requirements, then export earnings become a constraint on development and give rise to recurrent balance of payments pressures.¹

While many primary exports can be cultivated profitably on small holdings, and therefore tend to expand LDCs domestic cash markets, many others, particularly the extractive industries, are both capital lumpy and capital intensive. While they may be a major source of foreign exchange earnings vital for development, they frequently fail to be equally successful in creating employment. Numerous examples might

¹ECLA regards this type of problem as being both common and serious in Latin American LDCs. See ECLA, Development Problems in Latin America, Austin, Texas, University of Texas Press, 1970, the Introduction by Carlos Quintana and chaps. 1 and 2.
be sighted including Libya, Venezuela, and Iran whose petroleum industries contribute sixty, sixteen, and twenty-seven percent of GDP respectively, yet all of which provide employment for no more than one percent of the active population; or Zambia whose copper industry contributes 41% of GDP, but only 16% of total employment; or Jamaica whose bauxite industry accounts for 16% of GDP, but employs only one point six percent of the labour force.\textsuperscript{1} The existence of inelastic demand schedules for some primary products gives technological change in these industries a labour displacing effect.\textsuperscript{2} When there is disguised unemployment or underemployment in traditional activities, and a low level of labour absorption in many primary activities, the question of how to create employment for a steadily expanding labour force becomes a serious problem for LDC governments. Continued concentration on primary production may lead to rising foreign exchange earnings and GNP per capita, but also rising unemployment. Additional activities are required to absorb the ever expanding labour force. The reduction of dependence on primary export activities through production diversification may in the short run reduce the absolute rate of growth, but strengthen the LDCs economic base and long run growth potential.

\textsuperscript{1}Calculated from data given in The Quarterly Economic Review: Annual Supplement 1971 (for Zambia), 1972 (for Libya, Venezuela, Iran, and Jamaica), The Economist Intelligence Unit Ltd., London, 1972.

\textsuperscript{2}This point was made by Raul Prebisch in his "International Trade and Payments in an Era of Coexistence", American Economic Review: Papers and Proceedings, May 1959, pp.251-73.
A phenomena which is increasingly being mentioned as a reason for LDC production diversification and economic integration is "immiserizing growth." Simply stated it refers to the situation where the demand for an LDCs' primary exports is price and income inelastic, and where further production and exportation of these products yields a total level of export earnings lower than that for the previous volume of exports. When regarded in the strict individual LDC supply influence this seems somewhat far-fetched, but when considered in the context of a growing number of LDCs producing common primary products for export on an increasing scale, just how unrealistic is the final outcome? Growth through increased production can be wiped out by a deterioration in the terms of trade.

While fluctuations in the primary export prices of different products vary considerably in amplitude and in the nature of secular trend, and hence for the total exports of different LDCs, many LDC governments and many economists have come to the opinion that for many LDCs the greatest potential for long run development lies in sectors other

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1K. Kojima's Japan and a Pacific Free Trade Area cites this as one of the reasons for LDC integration, Berkeley, University of California Press, 1971, chap.2.

than those of primary products. The foreign exchange earnings of primary exports are essential for the importation of goods necessary for growth and development. However, considering the vagaries of demand for some primary exports, further investment of scarce capital in primary production involves a notable risk which in light of alternative investment opportunities may not be warranted.

In numerous LDCs primary export production is not the "leading" economic sector, but rather a lagging source of development finance. Such laggardness may restrain the development of an LDC by acting as a "foreign exchange constraint". It may be possible to remove this constraint by producing manufactures for export to the DCs, a topic considered in the following subsection.

(D) Development Through Manufacturing for Export

The development of manufacturing industries for export to developed country markets is one way of supplementing faltering primary export foreign exchange earnings and reducing their cyclical impact. Linder and other economists have pointed out that according to the "factor proportions theory" LDCs should have a comparative advantage in the production of all relatively labour-intensive manufactures.

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1 This point is implicit in numerous ECLA publications, op. cit., as well as the writings of Myrdal (op. cit.,) Kojima (op. cit.,) Kindleberger (op. cit.,) H. Brewster and C.Y. Thomas ("Aspects of the Theory of Economic Integration", Journal of Common Market Studies, Dec, 1969), and Miguel Wionczek (Economic Cooperation in Latin America, Africa, and Asia, Cambridge, Mass., The M.I.T. Press, 1969.)
which they should have no particular difficulty in exporting to the DCs.\(^1\) Balassa feels that the prospects are good for the exportation of simple manufactures and certain goods in which LDCs have a comparative advantage over DCs, due to low labour costs and abundant supplies of the required raw materials.\(^2\) However, the extent to which development can be pursued along the lines of the Hong Kong model is a point of considerable contention. A realistic treatment of comparative advantage requires the consideration of more than just the comparative availability of required factors such as labour, capital, and raw materials. Such factors as the skill composition of the labour force relative to those required for a particular industry, the technological requirements for producing the product and the extent and ease with which they can be adopted, the minimum required scale of the industry in relation to capital availability, the extent and nature of market impediments facing different potential producers, the extent of their comparative market communications and experience, and so on, all require weighted consideration in the determination of comparative advantages. Such consideration reveals that there are numerous impediments to LDCs exportation of manufactures to the DCs, including,

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\(^1\) S.B. Linder, "Customs Unions and Economic Development" in M.S. Wionczek's Latin American Economic Integration, New York, Praeger, 1966, Tootnote p.35.

(1) DCs apply formal and informal quotas on some imported manufactures (based on "pauper labour" arguments, etc.,)

(2) some DCs apply qualitative restrictions on imports.

(3) DC tariff rates on raw and semi-processed materials which are progressive according to stage of processing or refinement.

(4) the LDCs inability to compete with the technology applied by DC producers (i.e., the "technology gap").

(5) locational disadvantages (eg., shipping costs, isolation from the market, etc.,)

(6) capital constraints due in part to the scarcity of capital and the higher returns required on capital in LDCs to compensate for risk factors, and to the growing minimum scale (technical) for economic production.

(7) high level manpower bottlenecks and production inexperience.

(8) quality, style, and other problems associated with market inexperience.

(9) DC preferential treatment to the products of certain countries.

(10) vertically integrated multinational corporations and industries, various forms of tied or captive markets, licensing practices, and other types of market imperfections.

The General Agreement on Tariffs and Trade (GATT), through its system of tariff bargaining between principal suppliers, has resulted in a situation of low DC tariffs on those manufactures which are beyond most individual LDCs due to their complexity and, or large scale of production, and high tariffs on those manufactures which LDCs can produce competitively. Since the early 1960's the LDCs as a group have pressed the DCs to agree to a double standard of most favoured nation (MFN) treatment by which the DCs would grant preferences to the manu-
factures of LDCs. The basis for this request is the argument that the MFN rule of GATT is based on the principle of equal treatment, but that equal treatment is only equitable in the treatment of equals. Since DCs and LDCs are not equals, preferences are equitable. However, the DC's have generally been hesitant to give up the MFN rule and only recently (1971-72) have a number of them shown a willingness to extend general preferences for a number of DC imports from the LDCs. Considerable disagreement arose between both DCs and LDCs over the nature of the preferences to be granted. Equal treatment of unequal LDCs is not equitable either. With the above exceptions GATT currently permits the granting of general trade preferences only between the members of a free trade area, customs union, or some transitional form. DC preferences to LDCs already offered on this basis include the various preferences accorded to the LDC, associate members of the EEC.

Trade between LDCs in manufactures otherwise imported from DCs might be employed as a means of conserving hard foreign exchange earnings for essential imports from the DCs. Myrdal has repeatedly pointed out the desirability of increased industrialization by the LDCs and increased inter-LDC trade in manufactures along the lines of a "second-grade international specialization", particularly in labour intensive and less refined products. Currently trade between LDCs, particularly in manufactures, is generally a quite small proportion of their total trade. The common desire to either preserve domestic markets for local industr-

1 For details and criticisms of these General Preference schemes see B. Dunwiddy (ed.), Aid Performance and Development Policies of Western Countries, London, Overseas Development Institute, 1973.

ries or for the lowest priced imports (usually from DCs where manufactures are concerned), the use of high tariff walls and other trade restraints, and the retention of overvalued exchange rates all work to deter inter-LDC trade in manufactures. Furthermore, the dispersed locational nature of the LDCs, their individual production of relatively few manufactures, and their demand for imports of a wide variety of manufactured goods, tend to favour the purchase of manufactures from the DCs rather than from one another. It is believed in some quarters that the DCs are willing to permit trade competition between one another, but not with the LDCs, and that therefore increased inter-LDC trade has greater growth potential. The LDCs' efforts to extract permission from GATT to extend to one another trade preferences have yielded no definite results. Only through economic integration are they allowed to grant one another extensive trade preferences.

The LDCs' desire for industrialization is often looked on as an obsession, particularly when considering import-substitution. While this may be the case in certain instances, such thinking often overlooks what LDCs seek through industrialization. Many economists, like Myrdal, Prebisch, and Wionczek, regard industrialization as the

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1 J.A. Fincus traces this to the DCs ratification of a long term textile agreement in 1963 which set quantititative limits to their textile imports from the LDCs. See his "International Policies for Economic Development" in his Reshaping the World Economy, Englewood Cliffs, Prentice-Hall, 1968, pp.1-17.
most effective means of breaking traditional economic rigidity. It is widely held that manufacturing has a much stronger modernization influence than primary activities.\(^1\) H.W. Singer asserts that the most important contribution of manufacturing industry is not its immediate product, nor its effects on other industries and other social benefits, but «even further its effect on the general level of education, skill, way of life, inventiveness, habit, store of technology, creation of new demand, etc.,» \(^2\) These dynamic benefits are regarded as being much stronger than those emanating from traditional and primary activities. The situations of a rapidly expanding labour force, labour displacing technical change, and faltering demand in many primary activities, have lead numerous economists to believe that the development of new industries in LDCs is essential for the productive absorption of the unemployed labour common to most LDCs.\(^3\) Industrialization is also seen as a means of redressing the structural imbalance which requires the heavy dependence on trade earnings as a balancing factor. It is


\(^3\) For instance Raul Prebisch, "International Trade and Payments in an Era of Coexistence", op.cit; G.M. Meier, Leading Issues in Development Economics, op.cit., pp.297-303; also C. Quintana, Development Problems in Latin America, op.cit.,
even held that because diminishing returns are present to a much lesser degree in manufacturing than in primary production, and particularly in agriculture, that industrialization has a greater long run growth potential. This view is endorsed by the generally greater ability of manufacturing industries to generate more and stronger forward and backward linkages. It may be possible for some LDCs to make special arrangements with multinational corporations or producers in the DCs whereby the LDC producers manufacture particular parts or products under license for export. Such undertakings would yield the benefits sought through industrialization while avoiding many of the problems which LDCs usually face when manufacturing for export. The question is how widely can such an approach be applied in any one LDC, or in the LDCs as a group? Possibly LDCs with preferential access to particular DC markets, and certain production advantages, may benefit significantly from such undertakings. However, for most LDCs, the most likely means of obtaining the desired benefits of manufacturing industry is import-substitution, the topic of subsection E.

(E) Inward-Directed Growth

Dissatisfaction with the limited carry-over of the traditional outward-looking pattern of economic development and with its limited growth potential has lead a growing number of LDCs, particularly in Latin America, to consider the possibility of development of their domestic economies on a more balanced basis. Production is to be increasingly
in response to domestic demand requirements. This approach to development is referred to as "inward-directed" growth. One of the easiest ways of initiating this process is through import-substitution by which the LDC government appropriates the domestic markets developed by foreign suppliers for the strict use of domestic industries, or at least to the extent of permitting domestic firms to operate at or near their capacity limits. This de facto appropriation is achieved through the use of trade restraints on imports of the products produced by the industry to be protected.

ECLA regards import-substitution as a means of diminishing the foreign exchange constraint of trade dependence. Most LDCs cannot significantly affect the world market demand for their exports, and therefore the level of their total foreign exchange earnings, but they can effect the proportion of those earnings which go to the importation of "essential imports". While this could be achieved by placing an import embargo on all non-essentials it is likely that such a move would have adverse effects on production incentives. Selective import-substitution reserves foreign exchange for essentials while simultaneously providing a substitute for previous imports. In this manner LDCs can maximize the essential import content of their imports in a more efficient way.

Traditional trade theory regards import-substitution as inefficient and inferior to the specialization and trade according to comparative advantage model. A recognized
exception of highly criticized repute is the "infant industry argument" according to which the protected industry is granted protection for a limited period of time during which it is to develop to the stage of being economically viable in the absence of protection. Even this argument has been qualified by the Mill and Bastable Tests. According to the traditional treatment the resources employed in the substitute industry, with the one general exception, would be more productively employed elsewhere.

Import-substitution, however, does not reserve a continuously larger proportion of foreign exchange earnings for "essential imports". The substitution industries themselves will require further maintenance, modernization, and output expansion imports over time which can only be obtained by importation. A growing substitution sector, in the absence of import-substitution in essentials, may place a growing strain on foreign exchange earnings. It is often said that in LDCs it is easier to establish a new industry than to keep it operating efficiently over the long term.

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The usual reason for this is that governments fail to allocate adequate foreign exchange to the non-essential industries for their essential imports. The result is a proliferation of firms which operate at only a fraction of their capacity level. Such conditions lead Sidney Dell to conclude that import-substitution should be extended to the production of consumer durables, intermediate, and capital goods whenever efficiently possible.¹ The basic link in the LDCs dependence on trade earnings is their need to import essentials for development from the DCs. The more essentials the LDCs can produce domestically the weaker becomes the extent of their foreign exchange constraint. In certain cases import-substitution is basically a method of obtaining goods that otherwise, due to the foreign exchange constraint, supply problems, etc., would not be obtainable.² Furthermore, import-substitution may raise the productivity of factors that would otherwise go unused.³ Technically labour may be the most significant example. Under such circumstances the short run efficiency arguments against import-substitution become redundant. When account is taken of such import-substitution effects as the creation of external economies,


²This point was stressed by Carlos Quintana in his introduction to Development Problems in Latin America, op.cit., P.XXVI, bottom.

factor employment effects, and various non-market social benefits which private benefit-cost criteria do not consider, traditional opportunity-cost criteria are of only limited use.¹

LDCs can achieve a relatively significant degree of industrial maturity through the production of a small range of industrial products, such as paper, plastics, glass, fuel, industrial chemicals, textiles, cement, iron, and steel, etc. This is a benefit to be weighed against production inefficiency costs.

The basic objection to LDCs' import-substitution is that it all too often is undertaken in industries for which the national LDC market is far smaller than that required by technological parameters as the minimum plant capacity scale for economic operation. The result is usually excess capacity which results in high unit costs and idle capacity. The alternative productive potential of the scarce capital and foreign exchange embodied in the idle plant capacity may be highly significant. Also since foreign exchange is a scarce factor, the importation of capital for the new industry, much of which remains idle, reduces the maintenance import potential of existing industries, not to mention that required by alternative new industries. The condition of small LDC markets makes the establishment of certain industries

¹See H.B. Chenery on this, "Comparative Advantage and Development Policy", op.cit., p.22f.
(which are capital intensive, subject to significant economies of scale, and have lengthy establishment periods) economically impossible so that the LDCs cannot reduce their trade dependency on their own.

The extent to which import-substitution can be economically pursued depends on the extent of the domestic market for the products of particular industries. Many LDCs have failed to recognize this condition and have carried import-substitution too far with respect to cost-efficiency criteria.¹

(F) The Necessary Compromise

It should be recognized by now that the three basic approaches to economic development (i.e., primary production for export, manufacturing for export, and inward-directed growth) are desirable to different degrees for different LDCs. This situation requires a careful blending of the degrees to which each approach is pursued.

While some LDCs have been able to secure healthy increases in their primary export earnings, such as Bolivia and Paraguay whose earnings rose by sixty-seven and eighty-six percent over the period 1960-65, other LDCs have suffered stagnating export earnings, such as Brazil and Ghana whose earnings only rose by fifteen and one percent respectively.

over the period 1960-65.¹ For the latter group some form of production diversification is essential if they are to raise their rates of growth. Ragnar Nurkse stressed that LDCs should allocate their resources to those productive activities in which they have an incremental comparative advantage.² Balancing factor allocations between competing uses, such as primary production for export and import-substitution, is a demanding process. In certain cases it may be beneficial to continue primary production for export and, at the same time, to begin an "inward-directed growth process". Economic integration between LDCs is basically a means by which they can increase the efficiency and scope of "inward-directed growth". In the following subsection some of the basic desired benefits of integration will be elaborated in light of the problems associated with the three basic approaches to development.

(C) The Desired Benefits from Integration

Economic integration between LDCs is a sophisticated form of "self-help" which; in the light of faltering DC foreign aid, the vagaries of some primary export earnings, and the problems associated with manufacturing for export; appears increasingly desirable to numerous LDCs.


²R. Nurkse, Patterns of Trade and Development, op.cit., p.36, p.57.
The potential for "roundabout production" depends on the extent of the markets which in many LDCs is quite limited. Thus, the extent to which the division of labour and specialization can be pursued is also quite limited, a fact which results in much of the LDCs' industry being highly inefficient in relative terms. This market constraint has been a traditional impediment to LDC development which international trade only partially overcame. The integration of LDC markets on a regional or subregional basis, combined with the creation of a cost advantage for domestic producers over third country producers due to their exemption from member-state tariffs, enables domestic producers to increase their scale of production in response to the demand of their larger effective markets. One of the desired benefits of this will be the increased division of labour and specialization in LDC industry. The formation of a regional market will result in domestic producers facing both a greater variety in demand as well as a greater level of demand for individual goods.

The small size of effective LDC markets is fundamental to the inefficiency common in their import-substitution industries. One production effect of this is the need to produce a large variety of products in individual plants, each in small volumes. Consequently the production runs are short, much of the potential gains from "learning by doing" are foregone, downtime due to production changeover and re-tooling is considerable, production techniques are often too
simple to benefit from known technology, and thus unit costs are often very high. Technological parameters reflecting various production indivisibilities result in LDC plants with the ability to supply the domestic markets annual requirements within a matter of months, even weeks, if operated at or near full capacity levels. The unavoidable consequence is significant excess capacity which remains virtually untouched. The expansion of production envisaged through integration would permit some, if not all of such excess capacity to be taken up.

Preferential access to a regional market is desirable for existing industries in which economies of larger scale are important.¹ The savings in unit costs achievable through increased product specialization, the use of longer production runs, greater division of labour, the use of more complex production techniques and larger capacity equipment, savings due to volume purchasing of inputs, stochastic economies, and so forth, are often great, and in some instances virtually unlimited. Thus, integration may enable member-LDCs to raise the productivity of their scarce and underutilized

¹Economies of scale are of fundamental importance to the benefits of economic integration between LDCs. All too often these economies are dismissed as being either insignificant or unachievable, a position usually based on personal opinion rather than factual argument. A brief discussion of the economies of scale question has been included in Appendix I which includes details on their nature and illustrative data on their significance. The potential for gain through economies of scale may be great for particular LDC integration groupings, both in the short and long runs.
factors.

Access to a regionally integrated market will likely make efficient import-substitution possible on a much wider front than would be the case if each LDC undertook substitution on the basis of its national market alone. If import-substitution is undertaken on the basis of comparative advantage within the union, a considerably larger proportion of "non-essential" goods may be diverted away from the DCs to the lowest cost suppliers within the region. Such a process would both increase the efficiency of import-substitution\(^1\) and reduce the severity of the foreign exchange constraint for the member-states.\(^2\)

It is hoped that increased competition between LDC producers, or the threat of potential competition, will encourage them to rationalize their production activities so

\(^1\)In situations where import-substitution will be pursued at the national level virtually regardless, the efficiency benefits of integration will be particularly important (assuming that duplication is avoided).

\(^2\)The argument that import-substitution can reduce a foreign exchange (FE) bottleneck is sometimes countered by an argument which claims that such substitution may well be self-defeating.

The foreign exchange cost of importing equipment and services required to establish the import-substitute industry exceeds the cost of importing the original goods. Furthermore, since the establishment of the new industry takes a certain length of time before local production can commence, it is still necessary to import the good, unless they do without during the establishment period. Where the supply of FE available is very low, such import-substitution necessitates reduced imports of other goods. Thus, import-substitution aggravates FE shortage rather than relieves it.

This argument is no doubt true under certain circumstances, but to regard it as a "general truth" is to be
seriously mislead.

The argument seems to assume that the capital-output ratio of the new firm or industry is considerably greater than one, that the overwhelming majority of the equipment and services required to establish the industry must be imported from the DCs, and that these imports must be paid for in the very short run out of the FE trade earnings of one or two years. That these three conditions represent the "general case" is debatable. The capital-output ratio of a plant or industry need not always be greater than one. Neither is it always the case that virtually all of the equipment and human skills necessary to establish a new firm must be imported from the DCs. Significant quantities of the construction materials may be produced locally or in fellow member-states, as may be some of the plant equipment and tools. The assumption about the need to pay for such "establishment" imports in hard FE either in advance, on delivery, or in the very short run is also open to question. Many LDC industrial investments are financed abroad over periods of ten, fifteen, twenty years or more. In some cases grace periods spanning a number of years are granted further reducing the burden of paying for imports in the short run. Annual loan repayments in hard FE may be substantially less than the FE cost of importing the substitute good. Where the substitute industry has the ability to produce for export as well as to supply the home market the FE burden may be further reduced. Where firms are financed by means of foreign aid or soft loans the exchange required may be quite small. In addition new import-substitute industries may be financed by means of direct or indirect foreign investment, or by partial backing by private concerns having hard exchange reserves abroad.

Under circumstances such as those just outlined import-substitution need not heighten short run foreign exchange requirements, it may even reduce them. Even where import-substitution aggravates the FE bottleneck in the short run the resultant medium and long term FE savings and the assurance of reliable source of supply for the substitute goods in periods of severe exchange shortage may well outweigh the short run costs.
as to improve the quality of their products and, or reduce their production costs. This forced efficiency aspect of economic integration has both desired and undesired aspects which will be considered later in the paper. Due to the domestic market constraint much of LDC industry is small scale (less than fifty paid workers). Business and social contacts between rival producers are sometimes close, and often they observe a "live and let live" approach to competition. Emphasis is placed on low turnover high profit margin business practices. While there may be little to gain and much to lose through competition on a national market basis, the benefits to be gained from competition on a regional basis would be considerably larger. Furthermore, the ties between LDC producers would be weaker, a factor conducive to increased competition. Such conditions would hopefully benefit consumers through an increased variety in import-substitutes, improved quality, and lower prices.

Increased production for the domestic market would hopefully reduce the degree of structural imbalance in the member economies. The further import-substitution can be economically undertaken the less influence, will trade cycles exert on the regional economy, and therefore, the greater will be the LDCs control over their national economies.

In many LDCs manufacturing is concentrated in the production of either non-durable consumer goods (such as beverages, foodstuffs, tobacco products, candy, various
confectionary, etc.,) or products, which due to their bulky nature, can be produced competitively locally (such as bricks, concrete, cement, tiles, pipes, various concrete construction forms, lumber products, and so on). Only a few of the larger, more advanced LDCs currently produce durable consumer goods, intermediate and capital goods on any significant scale.¹

The majority, due to their small domestic markets relative to the minimum scale for economic production in such industries, import such goods. The minimum market requirements vary considerably from industry to industry, and while an LDC may consume a large volume of products of a particular industrial grouping, the annual consumption of specific varieties and forms of such products are generally below the minimum volume required for their economic production. However, if, through integration, a regional market can be formed of adequate size for specific durable goods, it may be possible to extend import-substitution to their production. Such industries are a major source of industrial growth. Intermediate-goods industries are particularly desirable to LDCs due to their ability to generate both forward and backward production linkages, in addition to final demand linkages. The greater the extent to which the durable goods industries can be established, the less binding becomes the foreign exchange constraint, and the greater the ability of the

¹For example India, Mexico, Brazil, Argentina, Chile, Israel, Republic of South Africa, and the United Arab Republic (Egypt).
member-LDCs to generate industrial growth internally.

The durable goods industries are generally subject to important economies of scale over a relatively large range of plant capacities. Thus, even large LDCs who have already established such industries may secure further economies of scale through integration. This explains, in part, the interest of Brazil, Mexico, and Argentina in the Latin American Free Trade Area (LAFTA). Large scale operations are also beneficial in that they make possible research and development (R & D) work on a relatively larger scale.¹ The products of such work are essential for the long run survival of numerous heavy industries in which competition is oriented towards product and production refinement, and the introduction of new products.²

Economies of scale in the intermediate and capital goods industries give rise to pecuniary external economies in those industries which employ the output of the latter as inputs. Such savings give rise to further economies, through the subsequent price and output adjustments of these industries, in a cumulative manner.

The integration of regional resource endowments should diminish the production constraint of limited or

¹Large scale firms have two important advantages in their R & D endeavours, they can spread R & D costs over a large volume of output with only small additions to unit costs, and (ii) they can undertake R & D in a number of different areas and thereby increase the likelihood of a pay-off for a given cost outlay.

²For instance various chemical and metallurgical industries.
skewed resource endowments. The existence of complementaries in resource endowments and production structures, combined with access to a regional market, could facilitate the establishment of industries previously beyond the abilities of the individual LDCs concerned. For instance one LDC might have the potential for the development of hydro-electric energy on a large scale and at a low cost per kwh., but lack the immediate market necessary to absorb the energy output of such a scheme. Thus, the scheme would have to be shelved until such time as the domestic market had developed to the stage requiring such a facility. However, if say there was a contiguous member-LDC extracting and refining bauxite into alumina for export, which desired to further process the alumina into aluminum before export, but which lacked the source of abundant low cost electrical energy necessary for the reduction process, it would be possible for the two members to come to a production arrangement. The one member could construct the hydro-electric facilities and sell part of its energy output to the newly established aluminum reduction plant of the other. The former would benefit from the employment in constructing and operating the hydro facility, the increased supplies of low cost electricity for its modern sector, and the increased development potential created by abundant supplies of low cost electrical energy. The latter would gain through the employment and income effects of constructing and operating the reduction plant, and through the greater value-added of its aluminum exports. The point here
is that individual investment projects may have an inter-
dependant nature which effects their economic efficiency.
Projects which are inefficient when undertaken alone may be
quite efficient if taken in conjunction with other projects.

Preferential access to a large captive market may
make it economically possible for the member-LDCs to develop
integrated or coordinated basic industries in which different
members specialized in the production of particular products
or components, or in particular stages of manufacture according
to regional comparative advantages. Such specialization
might well prove considerably more economic than the common
LDC practise of establishing independent industries that
require continued protection, and, or subsidization, produce
poor products and, or at high unit cost.\(^1\) Such linked pro-
duction and specialization is seen as being conducive to the
production of better products at lower prices. Such indus-
tries could both benefit from and generate external economies
in a cumulative manner. This specialization would enable
the member-LDCs to stretch the productivity of their limited
capital considerably beyond the point achievable if the
members pursued development in isolated compartments.

Successful economic integration would likely lead to
the increased inward-orientation of domestic economic activity,
rare characteristics for LDCs today. However, such increased
inward orientation need not involve the very high costs assoc-

\(^{1}\)For illustrations of this see I. Little, T. Scitovsky, and
M. Scott, \textit{Industry and Trade in Some Developing Countries},
op.cit., particularly chapter one.
iated with import substitution on a national market basis. The expansion of investment and planning horizons to a regional outlook should stimulate increases in both domestic and foreign investment. The expansion of the market, reduction of risk, and the possibility of reaping economies of scale behind a preferential tariff wall should improve the investment climate considerably. The growing domestic sector, the expansion of the money economy, and its growing labour absorption would hopefully result in a growing modernization influence which would spur the accelerated development of what Rostow saw as preconditions for the take-off into self-sustained growth.

The development of infrastructure on a regional or coordinated basis may facilitate the achievement of economies of scale in hydro-electric or steam power generation, communications, transportation, and other basic facilities. Further economies may be reaped through the integration of public services such as education, research, health services, tax collection, civil aviation, internal security, defence, etc. The principal gains would be due to the avoidance of duplication of effort, and to a more efficient allocation of scarce technical experts and other high level manpower.

Regional or subregional integration between groups of LDCs may enable the development of increased trade between LDCs, first within, and later between integration groups. Competition within an integrated market may enable LDC producers to obtain experience necessary for effective competition
in world markets, while at the same time protecting them from premature exposure to competition from DC producers or international corporations. This is the infant industry approach only on a regional basis. Integration may also facilitate the development of new export industries as in the example of the aluminum industry.

It may also be possible for LDC groups to improve their terms of trade with the DCs through such means as collective trade bargaining, bloc bilateral purchase and sale agreements, centralized marketing of principal exports, guaranteed price systems, and so on.

Through the various benefits mentioned above economic integration should yield a stronger and more viable long run development potential for the member-LDCs. Miguel Vionczek has come to the conclusion that about sixty LDCs are so backward, have such limited resources, and such small populations, that they cannot possibly relieve the pressure for economic development and social welfare by the traditional means of building separate national economies. Economic integration entails for them, not just an accelerated rate of growth, but an escape from secular stagnation.

Finally, having decided that certain possible benefits of economic integration are desirable from the LDCs' viewpoint, the question arises are such benefits likely to

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1M.S. Vionczek, Economic Cooperation in Latin America, Africa, and Asia, op.cit., p.4.
be forthcoming through integration between LDCs? We now
turn to a review of what static customs union theory has
to say on this matter in chapter III of the paper.
(III) **Static Customs Union Theory, Dynamics, and Economic Integration between LDCs.**

(A) **Static Customs Union Theory**

The term "static customs union theory" refers to a body of theoretical writings which have mainly been put forward in the postwar period by economists such as Viner, Lipsey, Meade, and Sannwald and Stohler.¹ These works were principally concerned with the conditions under which the formation of a customs union would lead to an increase in world economic welfare.

In its simplest form, the theory employed to elucidate this question makes the same basic assumptions as the static theory of comparative advantage. It thus deals with a situation in which the inputs of factors of production, the state of technical knowledge, tastes and the forms of economic organization are all treated as constant or as autonomous variables. Trade within each country is assumed to be perfectly competitive, and external economies and diseconomies are disregarded, so that domestic grounds for interference with the operation of the price system can be ignored. Full employment is implied. Problems of adjustment which in practice would be involved in the formation of a customs union are disregarded.²


It was under these type of assumptions that Viner introduced the concepts of "trade creation" and "trade diversion" which subsequently became the principal focus of attention of the static theory. "Trade creation" refers to the trade created when, due to the removal of tariff duties on trade between members of a customs union, the producers of one member-state displace producers in another member-state who had heretofore supplied the needs of their domestic market. This displacement represents a switch from high cost to low cost sources of supply. "Trade diversion" refers to the situation where a country initially imported a good from a low cost outside producer but, upon the formation of a customs union, changed its source of supply to a member-state producer whose production costs are higher, but whose market price is lower due to exemption from tariff charges. Thus, the static analysis is principally concerned with the nature and extent to which participant states change their sources of supply of imported products.

The analysis can be extended to the formation of a free trade area with the additional condition that allowance be made for "trade deflection" where necessary. "Trade deflection" refers to the situation where different members of an FTA levy different tariff rates on imports of a particular product, which subsequently is imported into different member-states via those member-states which levy lower rates of duty on the product in question.
Viner denoted a third type of trade effect of integration in his writings which has received little attention from integration theorists. The formation of a customs union may make possible the importation of a good from a member-state which had previously been too expensive to import due to high rates of duty, and yet, for a variety of reasons, impossible to produce domestically. This type of trade is very difficult to evaluate in terms similar to "trade creation" and "trade diversion". The greater the extent of this phenomena the less conclusive become evaluations of net benefits or costs based on "trade creation" and "trade diversion" measures.¹

According to the Vinerian analysis "trade creation" was beneficial to both the members of a customs union and to the world as a whole. It was a move towards increased production efficiency which resulted in cost savings for the member-states while causing no harm to non-members. The greater the extent of "trade creation" the better, for this would mean ever greater cost savings from the redistribution of production. On the other hand, "trade diversion" was undesirable for it entailed a redistribution of production from low cost to higher cost producers.² This was regarded

¹Viner assumed that this phenomena was more the exception than the rule.

²Note that the cost referred to here is the foreign exchange cost to the importing country. Similarly the import prices referred to are the foreign exchange prices to the country.
as being detrimental to the economic well-being of both the member-states, who were forced to pay higher prices for their imports, and for the outside world which suffered a decrease in demand for its exports. A customs union was regarded as being beneficial if it resulted in "net trade creation", and detrimental if it resulted in "net trade diversion".

This analysis involved a number of implicit assumptions. Firstly the principal purpose for and consequence of the formation of a customs union was the redistribution of production. The demand for individual goods was assumed to be perfectly inelastic so that there was a fixed quantity demanded regardless of price. The supply of individual producers was assumed to be perfectly elastic so that each producer could supply the entire market at a constant price. Consequently one producer would supply the entire market of individual member-states, the other producers being priced out of that market. The net gain or loss involved in the formation of a customs union depended on whether or not the total value of "trade creation" was greater than the total value of "trade diversion".¹ These assumptions proved to be extremely restrictive and of dubious validity. The subsequent writings of James Meade produced significant refinements in the static theory which made for more flexible and realistic analysis.

¹Note, Professor Viner did not explain how to weigh the costs and benefits of "trade creation" and "Trade diversion".
To begin with Meade pointed out that the actual costs and benefits of the formation of a customs union could not be measured simply by the calculation of the total value of trade diverted and created. The benefits of "trade creation" were measured as the total value of all unit cost savings on newly created trade, i.e., the sum of the difference in the pre-integration and post-integration market prices of all newly imported goods which were previously produced domestically. Similarly, the cost of "trade diversion" was measured as the total of all additional costs involved in the diverting of trade from a non-member-state to a member-state. The additional costs referred to here are equal to the sum of the unit increases in foreign exchange price of all "trade-diverted" commodities. That is, it is the total increase in the cost to the country, not the consumer, of importing the commodities from partner states rather than from lower cost third countries. Under the original assumptions of the static theory the market price of the "diverted" commodity will fall due to the removal of tariff charges, while the foreign exchange import price will rise due to import quantities and production costs being fixed.  

Meade also abandoned the rigid elasticity assumptions of supply and demand. A reduction in the market supply price

2Note that once the assumptions that import volumes and prices are fixed are dropped it is possible to obtain negative trade diversion costs.
of a commodity due to integration was seen to yield both a switch to a member-state supplier and an increase in the quantity demanded. The price change of the imported good would lead consumers to adjust their consumption patterns so as to maximize the utility derivable from their income. This would lead to an increase in the consumption of goods complementary to those having undergone a price reduction, and to a decrease in the demand for those goods previously consumed as substitutes for those goods having undergone a price reduction. This in turn would lead to a change in the demand for factors used in the production of different goods within the customs union, and consequently to further consumption adjustments in a reiterative process. Furthermore, the changed customs union demand for non-member imports, including both increases and decreases, would lead to similar repercussions in the demand and supply of both commodities and factors in countries outside the union. Thus, the formation of a customs union was seen to lead, via changes in both commodity and factor demand and supply, both within and outside the customs union, to a completely new pattern of world production and consumption. One of the significant points evolved in this analysis is the fact that it is impossible to accurately predict the full extent of "trade creation" and "trade diversion" prior to integration. It

Professor Keade discussed these various production and consumption repercussions in terms of the primary, secondary, and tertiary effects of a tariff change on trade flows.
may be possible to accurately forecast the first round of production and consumption adjustments precipitated by integration, possibly even the second, but for further successive adjustments the existing situation is too far removed for accurate projections.\(^1\) Similarly the welfare implications of the basic Viner model are no longer so easy to derive. Professor Meade has attempted to illustrate ways in which the world welfare effects of integration might be estimated, but the problems involved in a detailed and accurate estimation of the overall effects are formidable.\(^2\) Serious doubts arise as to the acceptability of the various assumptions which have to be made. Furthermore, the data requirements for the analysis are so extensive as to be beyond reach. The static theory is basically limited to an estimation of the likely initial or short run impact of economic integration on the member-states, and their trade relations with the non-member world. Economic integration is thought to be most beneficial if it is principally of the "trade creating" type. This type of reasoning was complemented by elaborations on various economic conditions and member-state characteristics deemed to be conducive to "net trade creation" or to the containment of "trade diversion".

\(^1\)Note that the use of adjustment rounds here is strictly to facilitate a more simplified exposition of the dynamic adjustment process initiated by integration. Such distinct "rounds" do not exist as such in reality for different producers and consumers react to their changing economic environment at different rates and at different points in time.

\(^2\)Familiarity with Professor Meades sophisticated analysis is beneficial to a better understanding of integration
(B) Desired Integration Conditions of the Static Theory

The writings of Viner, Meade, Lipsey, and Sannwald and Stohler produced eleven basic conditions under which the formation of a customs union was seen as being more likely to yield net economic benefits for the world as a whole.

The larger the economic area of a customs union, or more correctly the greater the unions share in total world production, consumption, and trade, the greater would be the benefits of union membership. Viner saw this as being conducive to the more extensive division of labour and specialization, while Sannwald and Stohler regarded the condition as being conducive to less extensive and less costly "trade diversion", and to the promotion of "trade creation". In the extreme the condition implies that the most desirable situation is a world customs union, i.e., universal free trade.

The lower the average tariff level on imports from third countries the more likely the formation of a customs union will increase world economic welfare, since "trade diversion" will be less extensive and less costly. Here the low tariffs are seen as a constraint on the extent to which member-states can exploit their preferential market access.

Thirdly, the greater the extent of correspondence in repercussions. See The Theory of Customs Unions, op.cit., pp.32-43 and pp.53-90.
the industries which the member-states protect prior to integration, and the greater the potential for complementary production, the more likely it is that the formation of a customs union will yield net benefits. The basis for this argument is that the formation of the union will produce mostly "trade creation" which permits the member-states to increase their mutual trade without diverting imports or exports from third country markets. The various displaced member producers are able to move into alternative complementary activities.

The greater the difference in unit production costs for a product produced in two or more member-states behind national tariff barriers, the greater will be the gains from integration. This is so since the cost savings from "trade creation" will be greater the greater are the differences in unit production costs.

The higher the tariff levels in potential export markets outside the customs union with respect to commodities in the production of which member-states would have a comparative advantage under free trade, the less is the opportunity cost of reducing the degree of specialization between the customs union area and the outside world. 1

1 This is Professor Viner's fifth condition, The Customs Union Issue, p. 52, top.
The greater the extent to which protected industries can lower their unit production costs, through market expansion, below third country import prices, the greater will be the benefits of integration. This condition allows for economies of scale which are generally excluded from the static theory and analysis.

The higher are the initial member-state tariffs on each others products the more likely is the formation of a customs union to result in net economic benefits. This assumes that all member-state tariffs are effective and reflect production cost differentials, so that higher inter-member preintegration tariffs would imply significant savings through "trade creation".

The benefits from integration will be higher, the higher is the proportion of custom union inter-member trade relative to their total trade. If member-states are one anothers principal suppliers of the commodities which they import, and are also the principal buyers of those commodities which one another export, then the potential for "trade diversion" is quite limited. Thus, the formation of a customs union will yield "net trade creation".

The lower the tariff rates of the outside world and the more customs unions into which the world is divided, the more likely is the formation of a customs union to yield net gains. The low external tariffs would lead to a minimum degree of "trade diversion", while the existence of a large number of alternative markets, each with low tariffs, would
reduce the costs of redirecting exports for third country producers.

The greater the extent to which trade restraints take the form of fixed quotas, the fewer will be the unfavourable secondary effects on the economic welfare of the world due to integration. Whereas tariff restrictions would favour the capturing of markets on the basis of production costs within a customs union, quantitative restraints would enable third country producers to continue to supply member-state markets with a fixed level of exports so long as they were competitively priced. Consequently the potential for "trade diversion" would be limited.

Finally, it is concluded that the lower is the proportion of foreign trade of each member to purchases of domestic commodities, the greater are the benefits to be derived from the formation of a customs union. The reasoning behind this condition is that the lower is the pre-integration consumption of imports relative to total consumption, the more limited is the potential for "trade diversion". In addition, the low ratio of imports to consumption means that domestic producers supply the majority of the potential member-states consumption requirements. Unless domestic producers are low cost producers the formation of customs union should precipitate a considerable amount of "trade creation". 

The greater the degree to which potential member-states satisfy the eleven conditions outlined above the

1Only under the condition of identical production costs.
greater their potential for gain through the formation of a customs union.

(C) The Implications of Static Theory for Integration Among LDCs

In by far the majority of cases the formation of a CU among LDCs would involve only a small proportion of total world production, consumption, and trade. Their average tariff levels on imports from third countries would tend to be high, particularly for import-substitution industries. Furthermore, while LDCs tend to protect the same types of industries, the total number of industries tends to be quite limited in most LDCs. Production cost differentials between commonly protected industries may be significant, but probably less significant than the differential between the lowest cost third country supplier. LDCs have a comparative advantage mainly in the production of primary products on which external tariff levels tend to be low, except for the higher processed forms. Also, the proportion of LDC trade conducted with neighboring LDCs tends to be very low. The number of industries in which LDCs are one another's principal buyers or suppliers is an extremely small proportion of their total trade. The extent to which fixed quantitative trade restrictions are employed by LDCs relative to tariffs is unknown. However, considering the significance of tariff revenues to most LDCs, it may be assumed that a large, if not the major

would the removal of inter-member trade restraints fail to induce "trade creation", CETERIS PARIBUS.
proportion of LDC trade restraints take the form of tariffs. Finally, the ratio of trade to national income, and of imports to domestic consumption tend to be high for the majority of LDCs. Given these conditions in comparison to those dictated by static customs union theory, it would appear that LDCs and the world would gain little from their integration. In addition the costs of a customs union would be uneconomically high, particularly when between small, low income LDCs.

(D) **The Unanswered Questions**

The strength with which static customs union theory disfavours economic integration between LDCs is unmistakable, but after having considered all the possible benefits which LDCs might reap through economic integration in chapter II of the paper, the simplicity with which static theory disposes with the matter is disturbing. Nowhere in the analysis is any mention made on the growth effects of integration, while this is the principal desired effect for LDCs. The expansionary effects of integration on planning horizons, investment levels, and future investment rates are never mentioned. The educative and technology gap effects are ruled out by the assumption of perfect knowledge. Forced efficiency effects cannot exist since theory always assumes that producers are economically rational beings seeking to maximize profits and minimize costs. The external economies seen as being important in integration between LDCs are ruled out. The desired phenomena of increased competition is also excluded by the assumptions of perfect competition. A customs
únion will have no effect on employment levels since full employment is assumed, nor will it influence the general level of resource utilization since all resources are fully used. No mention is made concerning the non-economic effects of integration on tastes and preferences, work-leisure habits, and so on, these are assumed to be constant or autonomous variables. What mention is made of the potential significance of economies of scale is generally apart from the main flow of theoretical analysis, and seemingly of only minor importance. The effects of integration on member-state government revenues is overlooked and does not enter even into Meade's utility analysis. The potential savings in integrated infrastructural development and in the provision of government services are not considered. Comparative advantages are assumed to be constant, thereby ruling out any consideration of the dynamic effects of integration on member-state comparative advantages. Factor productivity is assumed to be constant, an assumption which rules out any infant industry or other dynamic arguments. No allowance is made for the consideration of possible foreign exchange constraints or bottlenecks. Terms of trade are referred to, but apart from the theoretical analysis and seemingly as an afterthought.

The neglect of so many of the possible benefits of economic integration between LDCs serves as a basis for challenging the authority of static customs union theory. It is necessary to look far beyond the horizons set by the static analysis, not only to detect further possible integration
benefits, but also further possible costs. How valid are
the initial eleven conditions for benefit maximization?
Is "trade creation" beneficial, and is "trade diversion"
necessarily detrimental? These questions and others will be
considered in subsection (E) of this chapter.

(E) The Problem with the Trade Creation-
Trade Diversion Analysis

If they are useful theories, they will have focused on variables that in a particular
setting are both strategic and subject to change by policy-makers. Therefore, the
more useful they are in one setting, the less they are likely to be so in a completely
different one. An attempt to "apply" them nevertheless may turn out to be a lengthy
detour rather than a short cut. For, as we have become used to looking at reality
through certain theoretical glasses, we may for a long time be unable to see it
as it really is.

A. V. Hirschman. ¹

The static customs union theory was developed in a
body of writings oriented towards the analysis of benefits
and costs incurred in the economic integration of DCs.
Specifically they sought to analyse the prospects for gain
and loss in European economic integration, i.e., Benelux,
the ECSC, and the EEC. ² Consequently certain member-state

¹ A. V. Hirschman, The Strategy of Economic Development, New
Haven, Yale University Press, 1958, p. 29, bottom.

² Benelux is the name of the economic union of Belgium, the
Netherlands, and Luxembourg. It was developed gradually
over the period 1943-1958 and, acting as a bloc, was the
fourth "founding state" of the EEC. For details on its
background see "The Building of Benelux, 1943-1960" in
Case Studies in European Economic Union: The Mechanics of
Integration by J. E. Meade, H. H. Lissner, and S. J. Wells,
London, Oxford University Press, 1962, which preceded
their inclusion in the EEC.
characteristics and abilities were assumed to exist in all members, such as full employment, a high degree of competition, effective banking systems, effective monetary and fiscal policies, a significant degree of production specialization in individual states, particularly with respect to manufacturing, and so on.\(^1\) However, such characteristics are not typical of LDCs.\(^2\) As Professor A.J. Brown has asserted, to attempt to apply the static analysis to LDCs is to take their underdeveloped state for granted.\(^2\) The static theory not only limits integration analysis to a very narrow range of considerations, but also within that range it adopts normative assumptions on what to regard as a benefit and what to regard as a cost which are inappropriate in the case of integration between LDCs. The static theory views the principal benefits of integration as stemming from the

\(^1\) "Like customs-union theorists generally, I assume in this article that the members are at an advanced stage of economic development, with diversified ranges of production, a large volume of intra-regional trade, efficient money and foreign exchange markets, and mature central banks. This assumption means that my analysis, like customs-union theory generally, cannot be extended readily to the analysis of customs unions in underdeveloped areas." Cited from B. Cohen's "Exchange Rates during the Process of Customs Union" by R. Kolinski, "Customs Unions of Underdeveloped Nations: The Case of Central America", Economia Internazionale, VOL. XXII NO.1, 1969, pp.116-32, p.116, top.

resultant more efficient allocation and utilization of existing resources, whereas the principal reason for which LDCs undertake economic integration is to achieve an accelerated rate of economic development. There is a fundamental difference here. While the former is a static goal, the latter is dynamic. The static theory focuses on one frame of the member-states' "development film", while the LDCs are concentrating on the rate at which this "film" is carried forward, and on the content of the later frames. What may be appropriate to one frame may not be appropriate to the desired outcome of the "film".

For theory to be an appropriate basis for evaluating economic integration it must be able to measure or account for dynamic benefits and costs. This is particularly true of integration between LDCs for which integration has a much stronger transformation or moulding effect than does integration between DCs where specialization has already been established to a significant degree. The persistent introduction of new products and processes, and the continued phasing out of dated products and production techniques produces a continued tendency away from any general equilibrium condition. Static analysis cannot deal adequately with growth and change, not even comparative statics, for it cannot illuminate the transitional mechanism, a mechanism which is of fundamental importance to an evaluation of the costs and benefits of economic integration between LDCs. Economic integration is future oriented. Most of the costs and
benefits involved occur over time. While comparative static measures indicate the momentary costs and benefits at different points in time, one cannot necessarily accept such measures as indicative of the net costs and benefits involved in the long run. When the time patterns in which different costs and benefits are incurred by different member-states are out of phase, comparative static evaluations may yield seemingly contradictory results, none of which may be truly reflective of the net long run impact of integration. The predictive ability of static analysis is even more suspect.

Static customs union theory concentrates on changing trade patterns or sources of supply, but since trade patterns may change greatly as development proceeds, how accurate are such trade related measures of integration costs and benefits? Questions of "which-way-causality" will undoubtedly arise. Static "trade creation" and "trade diversion" analysis is inadequate in itself for an evaluation of economic integration between LDCs.

According to the static theory "trade creation" is a beneficial phenomena for it represents a move towards increased world production efficiency. "Trade diversion" is detrimental because it has the opposite effect. This benefit-cost system of evaluating economic integration is unacceptable in the case of many LDCs. Whether trade is created or diverted in a member market the commodity price to the consumer falls. Consequently the size of the consumer surplus in the consumption of such goods rises, a situation
increasing the real income and consumption utility of the consumers in the member-state. The consequent reduction in member-state government revenues due to integration leads to an increase in state tax rates, duties, and, or prices, as well as to a possible reduction in government services which the member-state public consumes. This reactionary effect to the loss of government revenues/works to reduce consumers real incomes and consumption utility. The total effect on the aggregate level of member-state welfare will depend on the extent to which these two processes affect the individual consumers. Such evaluations are beyond quantitative measure and are subject to member-state government priorities. The rigid static evaluations are unacceptable. 1

"Trade creation" may be looked upon with less enthusiasm by member-state LDCs since it involves the expansion of one member's industry, but at the direct expense of another's. On the other hand "trade diversion" leads to the expansion of member-state industry at the expense of third country producers. These direct production effects have lead LDCs to regard "trade creation" as the price to be paid for the expansionary benefits of "trade diversion", and of "trade creation" (where the member's domestic producer displaces

1Professor Meade goes so far as to assume that the marginal utility of a dollar is constant to everyone everywhere in order to put the static theory in a more realistic production-consumption setting. The Theory of Customs Unions, op.cit., p.57, middle.
producers in other member-states). This is in direct opposition to the static analysis.

The static analysis regards "trade diversion" as being bad for world economic welfare. However, the level of world economic welfare is of secondary importance, if not tertiary, to countries undertaking economic integration. Their principal concern is with raising the aggregate level of their individual economic welfare. "Trade diversion" may involve a switch from lower cost to higher cost sources of supply, and hence lead to a decrease in the proportion of foreign exchange available for the importation of essentials, but, if the individual member-state export increases due to "trade creation" and "trade diversion" are multilaterally balanced no net hard foreign exchange transfer is required between the member-states. They may pay more for their member-state imports, but they also receive more for their member-state exports.


2It is realized that the economic welfare of LDCs is related to the economic welfare of the DCs to varying degrees.

3This assumes that the settling of trade accounts occurs on known specified dates at fixed intervals, balance existing at such points in time.

4Consequently the switch to the higher cost source of supply need not lead to an increase in general cost levels. The foreign exchange price rises, but the consumer price falls so that cost levels may in fact decline. General cost levels may rise in integrated regions which adopt higher tariff levels toward third countries, but this is a phenomenon fundamentally different to static "trade diversion".
The question must be asked as to why "trade creation" and "trade diversion" alone are centered out as the key determinants of net benefits or costs. Even if these two phenomena are transformed into a dynamic setting, and if the LDCs' reversed evaluation criteria are adopted, they still fail to come even close to indicating the total benefits and costs involved in economic integration between LDCs.

The more recent analytical works on economic integration between LDCs by Professors Johnson, and Cooper and Massell adopt the assumption that LDCs have a preference for industrial development.¹ The level of member-state economic welfare is seen as being strongly influenced by the joint private and public consumption of the output and other benefits of industry. This assumption provides a theoretical basis for investigating the multitude of benefits and costs passed over by the static customs union theory. Generally such benefits and costs are considerably more significant to LDCs than the "trade creation-trade diversion" evaluations.

Further Comments on Some of the Eleven Static Conditions

Since the static customs union theory is unacceptable in analysing economic integration between ECUs, it becomes necessary to reconsider the acceptability of the eleven conditions put forward under the static analysis as being conducive to the derivation of net benefits from economic integration.

The static analysis overemphasized initial conditions. Once it is realized that the conditions under which integration is pursued change over time, and hence are changeable, then the initial conditions become less significant. Consideration has to be given to potential conditions in addition.

Viner's conclusion that the formation of a customs union is unlikely to yield economic gains unless it is between «sizable countries which practice substantial protection of substantially similar industries» has become a point of considerable controversy.¹ To begin with Viner did not explain how to measure the size or economic area of a customs union. The most commonly used indicators are GDP, population, and land area, though these are often qualified by further data such as income per capita, consumption per capita, and purchasing power density coefficients (PPDs).²

¹J. Viner, The Customs Union Issue, op.cit., p.135, middle.
²A PPD coefficient is an indicator of market distribution or density developed by B.F. Massell. It is a combination of per capita income and population density.
The desire to develop criteria by which the potential for gain and loss through economic integration could be readily estimated has produced numerous insights into the significance of size, but no hard and fast criteria. Some economists feel that the greatest advantages of economic integration apply to small customs unions such as the Central American Common Market (CACH). Many others agree with Viner on the desirability of large size though the degree of coherence in their reasoning leaves much to be desired. The problem with most of the views put forward is that they concentrate on one or two aspects of size to the neglect of the multitude of other factors which also influence an integration groups potential for gain. Such factors as:

1. the quantity, quality, variety, and distribution of natural resources.

2. the population size, density, and distribution; its age and sex composition; the birth rate, death rate, and the trend in the net population growth rate.

3. the composition of the labour force by age, sex, education, occupation, and industry of employment; labour force participation rates/ unemployment rates, and the growth rates of the various groupings and their trends.

1Keising cites Duncan, Ropke, and the various proponents of the CACM as such. D.B. Keising, "Thailand and Malaya: A Case for a Common Market?", The Malayan Economic Review, VOL.X NO.2, 1965, pp.102-13, p.104, middle. The original five members of CACH were Costa Rica, El Salvador, Honduras, Guatemala, and Nicaragua. This union has been in a state of suspended animation since the war between El Salvador and Honduras in July 1969.

2Including Sannwald, Stohler, R.L. Allen, B. Balassa, and others.
(4) the size of the economy (GDP, GNP, etc.) and its sectoral composition; gross and sectoral growth rates, and their individual trends; the level of per capita income, the distribution of income, and the concentration of income by groups, location, etc.; the aggregate level and growth rate of the capital stock, and its age composition; savings and investment rates; the laws and regulations which affect economic activity; the extent and nature of government participation in the economy; and various foreign business and investment influences; etc.,

(5) mobility factors for capital, labour, and other factors of production,

(6) the nature and significance of internal and external political factors such as popular support, nationalism, regionalist views, etc.,

(7) the degree of cultural and social homogeneity or heterogeneity with respect to religion, culture, race, language, historical background, and social preferences and priorities; the nature of work and leisure habits; various dynamic qualities such as adaptability and inventiveness;

and many others must also be considered, both with respect to individual member-states and to the integrated area as a whole, for they are often more significant with respect to the potential gains from integration than are strict size factors.

There is a danger in carrying "ceteris paribus" too far. For instance one might be tempted to conclude that for integrated areas with equal levels of aggregate GDP (after the exclusion of subsistence components) the one having the greatest number of member-states would benefit the most from economic integration, while the one having the least number
would benefit the least. However, there are numerous implicit assumptions in the analysis which are often unacceptable. One is that the member-state of each integration area would be of equal economic size so that the market expansion effect of integration would be equal for each member-state. It is unlikely that say for two customs unions of such equal size, one having three equally sized member-states, and the other having one large dominant member-state, and four or five very small members, that the latter union would be able to reap more benefits from economic integration than the former customs union. Another is that each state has equally economic access to the expanded integration market. Still a third is that small states are just as able to take advantage of a greatly expanded market as are large states.

The inclusion of a large land area in a form of economic integration is often assumed to indicate a greater variety and volume of natural resources. This in turn is assumed to facilitate a greater degree of production diversification. However, such simplifications are unacceptable. The resources, assuming that they exist, may not be economically exploitable. Mineral deposits may be located in inaccessible or remote areas where the "ore content-exploitation cost" trade-off is unacceptable. Geographical factors may limit the extent to which specialization in the production

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1 The significance of the market expansion effect on individual member-states is stressed by B. Balassa, Economic Development and Integration, Mexico, Centro-de-Estudios Monetarios Latino-Americanos, 1965, pp. 28-29.
of specific crops can be undertaken. Land may be suitable to the production of crops which, due to excess supply conditions or lack of markets, would not be economical to produce. The resource significance of small size may well be considerable for small islands or "micro states", but the area-resource relationship is not as apparent for larger groupings.

A large market in an integrated area is often regarded as being conducive to increased competition, but if this is so why does the United States find it necessary to pursue vigorous anti-monopoly policies? Also, would not preferential access to a large integrated LDC market prove increasingly attractive to large international corporations whose financial, production, and marketing abilities generally exceed those of the majority of domestic LDC producers by a considerable degree?

In the appendix on economies of scale it is explained that the larger is the market for an industry the greater is the potential for the achievement of economies of scale. From this one might conclude that larger integrated areas would gain more from economies of scale than smaller areas.

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1Geographical factors are very important in African agriculture. See A.M. Kamara, The Economics of African Development, op.cit., chap. 5, particularly pp.92-97

2This question was put forward by Paul Streeten in his Economic Integration: Aspects and Problems, Leyden, A.W. Sijthoff, 1961, p.31, middle.

However, it is necessary to keep in mind that different industries have minimum market requirements of different sizes. Thus, the "production threshold" varies from industry to industry in such a way that it may be possible to list all industries ranging from those with the smallest market requirements to those with the largest. The larger a member-state market the more industries it may support, and similarly the larger the market of an integrated area the more industries it may economically support. Now it is necessary to keep several considerations in mind. Firstly, the smaller an economy the less industries it can support, and therefore the more industries it has yet to establish. Thus, the greater is the market expansion effect of integration the more new industries it becomes possible to establish. Thus, overall market size is not so much significant as is proportional market expansion to member-states. Secondly, economies of scale are reaped to different extents in different industries over different production levels requiring different sizes of markets so that both large and small member-state economies may achieve economies of scale. Thirdly, while smaller member-states may achieve economies of scale in a larger number of industries than do much larger member-states, the larger member-states may achieve significant scale economies in the large scale basic industries which, by the creation of pecuniary external economies, lead to production cost savings of a chain reaction nature in smaller scale industries which employ their outputs as inputs. Thus, it is
not necessarily the case that economic integration between large economies will yield relatively greater benefits due to the achievement of economies of scale than will economic integration between small economies.

The point is that both large and small member-states in both large and small integration areas can benefit from the market and resource expansion due to economic integration. Consequently the aggregate size-benefit criteria advanced by a number of economists may be regarded as being of limited value and validity. Too many other factors also require consideration. Currently economic integration has been undertaken by LDCs covering a wide range of sizes from the tiny island economies of the East Caribbean Common Market (ECCM) with its total population of four and one half million people, to the continental free trade area of LAFTA with its population of 237 million people.¹ A large number of other inter-LDC integration groups fall along the size ranges between these two extremes.

The extent to which customs unions provide a preferential market for domestic producers varies directly, but not necessarily proportionately with the height of the common or average tariff level for third country imports. Both

¹The ECCM was formed July 1st, 1968 by Antigua, Dominica, Grenada, St. Lucia, St. Vincent, Montserrat, and St. Kitts-Nevis-Anguilla. Population data for the ECCM was taken from P. Andić, D. Bosser, A Theory of Economic Integration for Developing Countries, London, George Allen and Unwin Ltd., 1971, p. 91, middle; while that for LAFTA was calculated from data given in the annual summaries of the Economist Intelligence Unit series for 1971.
integration benefits and costs are thus related to the height of the external tariffs applied. However, it is no longer possible to make a general case for whether higher or lower common tariffs lead to greater or lesser costs and benefits.

Static theory declared that economic integration would be most beneficial when undertaken by states which initially were very competitive, but also potentially very complementary. Considerable controversy has developed around this matter due to an inherent conflict which results in both a desire for and a fear of the effects of both competition and complementarity.

Competition is desired to ensure that the protected regional industries operate in an efficient manner. However, when the integrated markets are relatively small in relation to the minimum market requirements for an industry competition may result in the duplication of capacity. When idle capacity results competition worsens the situation that it was meant to cure.

The argument that integration between LDCs with competitive production structures will result in "trade creation" is often voiced as a reason for staying out of integration movements. The fear of what is sometimes referred to as the creative destruction of competition, i.e., the displacement from the market of high cost member-state industries by the lower cost industries of other member-states, was cited by Jorge Borbon, then the Minister of Economics of Costa Rica, as one of the reasons for Costa Rica's initial hesitation to
join the CACM. The cost of such industrial disinvestment depends on the initial cost at which the industries were established, and on the extent and ease with which the displaced factors can be transferred to alternative production activities. It is likely that fears of disinvestment and a wave of bankruptcies are more well founded when integration is between LDCs at different stages of development.

It may be possible to obtain the desired efficiency effects of competition while avoiding the displacement costs. Where integration is achieved through a series of trade restraint reductions at fixed intervals with the objective of freeing all inter-member trade by a known future date inefficient producers, aware of their potential future displacement, may be prompted to rationalize their production activities. This "belt tightening" effect is one of the most desired effects of competition.

Dell feels that "the primary function of a common market in underdeveloped countries is to stimulate industrial progress, not competition among industries that are still new." This type of reasoning is common in the Latin American integration movement. It has been said that from the

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2 We shall return to the question of problems due to integration between LDCs at different stages of development in chapter IV of the paper.

outset LAFTA was designed to be a trade-diverting customs arrangement with emphasis placed on the minimization of displacement effects in existing industries, planned complementarity in future industrial development, and trade balancing.¹

Complementarity in member-state production structures may enable member-states of an integration agreement to benefit from one another's production specialization. The productivity of one industry will affect the productivity of others in a positive manner. Also, the more complementary are initial member-state production structures the less extensive will be the initial displacement effects of integration. However, complementarity may also lead to various market inefficiencies and imperfections due to a lack of competition for protected producers. Problems may also arise due to the inability of member-states to come to a satisfactory agreement on future specialization, particularly where some members are specialized in primary production to a high degree while others have already undertaken a significant degree of industrialization. This type of problem arose in the short lived federation between the Federation of Malaya, North Borneo, Brunei, Sarawak, and Singapore. Economic integration was undertaken on the basis that the

member-states were complementary, but potentially competitive.

It appears that both excessive complementarity and excessive competitiveness are undesirable member-state characteristics for integration between LDCs. Where potential member-states are highly competitive measures must be taken to minimize the destructive effects of competition on existing industry. Where they are highly complementarly measures must be taken to maximize efficiency and to minimize the potential for the exploitation of market imperfections. Another characteristic of member-states which is related to complementary production structures is different degrees of inward and outward production orientation. Such complementarity may lead to the development of fundamental differences in interests under economic integration, a topic which will be considered later in the paper. Where the member LDCs all have very little industrial development initially, but see considerable potential for industrial development under integration, the initial degrees of complementarity or competitiveness may well be insignificant.

The greater the differences in production costs in industries common to two or more member-states the more likely it is that integration will lead to either forced efficiency or market displacement by a more efficient member producer.

The greater the extent to which economies of scale

\^Note that this is the exact opposite of the type of thinking behind Central American economic integration where integration was undertaken on the basis that the economies were initially competitive, but potentially complementatory.
can be achieved through integration the greater will be benefits derived from integration.

The higher are the initial tariff levels of member LDCs the greater will be the significance of the market preference given to member-state producers, and thus the greater will be the potential for "trade diversion".

Most of the eleven conditions given in the static theory are unacceptable when considering integration between underdeveloped countries. Those that remain valid are of only limited significance and fail to provide an adequate basis for judging the potential benefits and costs to be derived from economic integration.

(G) Protection or a Move towards Free Trade?

Evaluations of economic integration between LDCs frequently employ comparisons of the costs and benefits to be derived from economic integration and those which would supposedly be obtainable by the complete non-preferential removal of tariffs. The point is made that significant savings are achievable through the purchase of a good from a lower cost third country producer rather than from a member-state producer. This would be appropriate if the actual alternative to economic integration between LDCs was the complete elimination of tariffs on a non-discriminatory basis. However, this is not usually the case, LDCs do not regard free trade on a wide basis as a desirable situation for they would not be able to compete effectively due to their limited production capabilities. They are essentially protectionist
in their outlook. For them economic integration is an efficient form of protection. The real alternative to integration is import-substitution and industrialization on the basis of protected national markets. Integration is a means by which such substitution can be carried out on a wider front and on a more efficient scale. Even when considering free trade with neighboring LDCs the LDC governments are often fearful of their relative inability to compete. They tend to be protectionist both with respect to the outside world and to their fellow member-states.

Economic integration can be considered either as a move towards general free trade, since it leads to a reduction in the total level of world trade restraints, or as a move towards increased protection, since it extends trade discrimination over a greater area. The expansionary trade effect would depend on the extent to which inter-member trade increased, while the protectionist effect would depend on the extent to which third country imports were displaced. Even where the tariff levels for third country imports go unchanged, or where they are changed in such a manner that their mean height remains equal to the preintegration level, their protective effect is greater. Integration is sometimes looked on as a way of extending protection to a greater amount of industry for a fixed cost, or of reducing the cost of protecting a given amount of industry.

A common paradox found in the literature on economic integration is that both free-traders and protectionists
alike often endorse economic integration on the basis of completely different and often conflicting arguments aimed at the achievement of completely different end results. Professor Streeten believes that conflicting objectives of this type between participating integration members may be a cause of serious internal tension.\(^1\) He notes that in the EEC while Germany and Benelux are keener on the free trade aspects of integration, France favours the protectionist opportunities offered by integration. The original structure of EFTA was said to be the result of a more liberal approach towards integration which favoured freer trade, while that of the EEC was more inward looking and protectionist from the outset.\(^2\)

It is occasionally remarked that the formation of integrated markets on regional or subregional bases may make the transition to free trade a lengthier or impossible process. The reasoning behind this argument is that integration creates preferential market positions which initial member-states are reluctant or unwilling to share. For instance, in the case of the EEC, eighteen African LDCs received preferential access to the large EEC primary product market by becoming associate members under the Yaounde Convention. Subsequently Kenya, Uganda, and Tanzania also obtained associate membership under


\(^2\)ibid., p.22, top.
the Arusha Convention. The two groups of associate members produced competing products which resulted in increased competition and relatively lower prices in the EEC primary product market. The association of the East African LDCs was greeted with considerable disfavour by the Yaounde groups who saw increased LDC association as leading to the erosion of their preferential market position. The recent expansion of the EEC was undertaken on the understanding that those African and Caribbean LDCs which had enjoyed preferential access to the United Kingdom market under the Commonwealth Preference system would be free to negotiate associate membership with the EEC. The reception of this situation by the Yaounde group has been decidedly cool. Where integration leads to the creation of rival groups specializing in the same industries, their union may be extremely difficult to bring about. Vested interests will strenuously pursue the maintenance of their preferential positions.

In some cases the integration of a group of states may lead to the reactionary formation of a rival or counterbalancing integration arrangement. It is often asserted that the formation of EFTA was a "bargaining terms" reaction by the Outer Seven to the formation of the EEC, i.e., aimed at minimizing the protective effects of EEC integration on EFTA group exports. Also the formation of COMECON was to a great

extent a response to the Western European recovery plans and integration measures.

Finally, integration between LDCs has a very different protective effect than does integration between LDCs. Integration between LDCs leads to the restructuring of the composition of imports from the DCs. The total volume of trade does not fall, its composition merely changes in favour of the increased importation of essentials from the DCs. On the other hand the protective effects of integration between the DCs impede the access of LDC exports to the DC markets. This in turn limits their export earnings, and hence their ability to import essentials required for growth and development.

(H) Integration and Development

on a Broader Front

It has often been said that the LDCs are poor because they are poor. Circular relationships are outlined to illustrate various interrelationships between such factors as low income levels and low levels of productivity which combine to frustrate economic development. For instance, underdeveloped countries generally have low per capita incomes, these low incomes are attributable to a low level of productivity, low productivity results in the inability to produce the necessary incremental excess to subsistence production required to secure the means (capital in various forms) by which productivity can be raised. Consequently productivity

The relatively low level of effective demand (i.e., small markets) for manufactured goods in LDCs acts as a strong disincentive to the development of manufacturing industry. Individual industrial projects, at least for the domestic market have relatively little effect on the rigid circular relationships which bind the LDC economy. They are generally limited to those industries for which imports have created markets within the LDC. The extent of demand interrelationships between such industries is usually quite low so that growth efforts by one industry do not stimulate any notable response by the others. Thus, the efforts to expand of an individual industry are subjected to the drag effects of the lagging industries. The idea of establishing numerous industries simultaneously so that each industry provides part of the demand for the output of the others is quite familiar in development economics. Rosenstein-Rodan and Nurkse have stressed the benefits to be derived from the simultaneous establishment of a large number of mass consumption industries which create a market for one another's
output through the generation of final demand linkages. Other economists have stressed the benefits to be derived from coordinating the establishment and expansion of industries which are complementary due to production relationships involving various forward and backward production linkages. For many industries productivity depends to a significant degree on the productivity of other industries. The major criticisms to these development proposals have concentrated on the formidable costs, and the extensive skilled manpower and technological requirements of such an approach. The desirability of complementarity in industrial development is acceptable. Given this, it is worth considering to what extent economic integration between LDCs might facilitate the achievement of some of the benefits of development on a broad front.

Integration produces a large protected market which not only makes it possible to economically expand the output levels of existing industries, but also to establish a large number of new industries which were previously uneconomical.

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to establish due to the market constraints of the individual LDCs. Domestic and foreign private investment would hopefully respond to the opportunity to undertake import-substitution on both a wider front and a larger scale, particularly in those industries for which the member-state governments extend special benefits in an effort to reduce import levels. The desire of foreign investors to circumvent tariff barriers and, at the same time, to gain preferential access to a large multi-state market should further stimulate foreign investment. This may be particularly desirable for companies already having marketing operations in some of the member-states. This expansion of consumer goods industries should lead to the creation of significant demand linkages.

For numerous industries the market constraint is only one of a number of deterrents to industrial development. The profitability of numerous industries depends on the availability of certain public services such as road and rail links with the regional market, communications, large low-cost power supplies, and so on. In such cases inadequate social overhead capital (SOC) may lead to production bottlenecks. Consequently a program for the development of member-state SOC on a regional basis may be required. This would

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1In a world where LDCs are increasingly required to compete for limited amounts of foreign aid and investment capital, the size of a country's capacity to productively absorb capital is an important determinant for its growth rate. Economic integration may significantly increase an LDC's capacity to absorb capital through its expansionary effects on markets, and on public and private planning horizons.
favour an integrated development effort with a large number
of complementary investment projects.¹ Some of these invest-
ments might never prove to be profitable on a private basis.
However, their prerequisite nature and ability to generate
external economies may well lead to significant net social
benefits over the long run. Integration, by accelerating
the rate of development, should reduce the long run cost of
building SOC ahead of demand.

The establishment of basic industries on the basis
of the regional market is an important objective in most
integration agreements between LDCs.² Such industries tend
to be capital lumpy and require lengthy gestation periods,
characteristics which lend themselves to integrated develop-
ment. They could be established by either individual govern-
ments, inter-governmental corporations, joint public-private
concerns, or domestic and, or foreign private industry. What-
ever the case it is likely to be necessary initially to limit
the number of firms producing for the regional market so as
to ensure efficient production levels while avoiding the
costly aspects of competition.³ A program of agreed special-

¹This is one of several basic reasons for the undertaking
of coordinated or harmonized development plans with a
regional orientation.

²Even small integration areas like the CACM employ special
provisions for the treatment of relatively large scale
industries which require access to the entire regional market.

³Currently both the CACM, LAFTA, and the Central African
Economic and Customs Union (UDSAC) employ methods of reserving
markets for industries requiring access to their entire re-
regional market. In certain cases it may be necessary for LDCs
ization and complementarity for the development of large scale basic industry would be desirable to increase the productive power of available capital (through economies of scale, externalities, etc.,) and to reduce the degree of risk involved in concentrated specialization in basic industries where technological changes and innovations are frequent. In this manner an integrated region could benefit both from production specialization and production diversification. The pursuit of specialization on an individual member-state basis in accordance, as far as possible, with comparative advantages would yield a diversified regional production structure. ¹

The ability of some industries to give rise to the establishment of what Hirschman called "satellite industries" may encourage member-state governments to extend preferential treatment to those major industries deemed as having greater linkage generation abilities. ² This would be particularly to ensure monopoly positions (but not detrimental monopoly practices). The Andean Integration Group allocates integration industries in an effort to avoid the costs associated with the attritional competitive process of gradual market domination by the lowest cost producer. See D.M. Schydlofsky, "Allocating Integration Industries in the Andean Group", Journal of Common Market Studies, Vol. IX No. 4, 1971, pp. 299-307. The member-states of UDEAC are Congo (Brazzaville) Gabon, Central African Republic, and Cameroon. The member-states of the Andean Integration Group are Columbia, Ecuador, Peru, Bolivia, and Chile.

¹ The qualification here is due to the fact that comparative advantages may have to be foregone to a certain extent in order to ensure reciprocity, a subject discussed later in the paper.

desirable when existing regional import levels for the products of such industries exceed the minimum market requirements. Similarly, preference might be extended to certain "finishing touch" and consumer goods industries which create potential backward linkages to possible supplier industries which could be profitably established at a future date.¹ However, in this case the import requirements of such industries in the interim period might act as a deterrent to their establishment. The deliberate cultivation of production linkages is one way of expanding the growth contribution of initial investments as well as reducing the cost of development on a broader front. This would explain in part the preference of numerous economists for the development of intermediate goods industries.

The undertaking of industrial development on a regional basis may facilitate the breaking of production bottlenecks which effectively contained such development when attempted on the basis of individual national markets. Such investments would usually stimulate significant further investments in response to numerous growth forces.²

The expansion of markets for some industries may facilitate an increased degree of specialization of both an inter and intra-industry type. Horizontal and vertical

¹ibid., chap. 6, pp.109-16.

²Or as Hirschman would put it, such investments would serve as pace-setters for further subsequent investments.
specialization in large scale industries could yield significant scale savings as well as encourage the development of industrial service industries. It might also be desirable to undertake sectoral specialization within the region in accordance with effective comparative advantages.

The growth of the industrial sector envisaged under economic integration should lead to a growing demand for foodstuffs and industrial agricultural products. The inducements of higher prices and, or greater levels of demand to increased production should be supplemented by government efforts to expand agricultural credit, encourage investment in agricultural modernization, improve marketing facilities, provide assistance in learning and adopting more productive agricultural techniques, and generally increase the level and quality of farm extension and research services. The potential savings and increased efficiency with which these services can be provided on an integrated basis has already been noted.

When economic integration is considered along these broader lines it takes on aspects more commonly associated with theories of the "big push" or balanced versus unbalanced growth. Economic integration is aimed in part at deriving the utmost benefits from regional input-output and demand-supply relationships. Complementary development, the avoidance of duplication, and the minimization of excess capacity costs are fundamental integration objectives for LDCs, as are the cultivation of linkages and external economies. The point to be made is that economic integration, through its market
expansion effects, its increased investment incentives, its coordinated development aspects, and the resultant increased regional ability to productively absorb capital, has the potential to facilitate growth on both a wider and more balanced front, and at a higher overall rate. It is hoped that the broader development and growth aspects of economic integration will provide a shock wave of sufficient magnitude to break the traditional circles of poverty which constrain LDCs' development. Just as interrelationships may combine to frustrate development, interrelationships may be combined to facilitate development.
(IV) Potential Problems and Possible Solutions in Economic Integration between LDCs

(A) Polarization and Backwash

If an economic integration agreement between LDCs is to survive in the long run, it is absolutely essential that all member-states benefit from it. States will only be persuaded to take part in integration movements if they can be certain of securing net benefits in excess of those acquirable through independent growth and development.

The tendency of industrial development, economic activity, and growth to be concentrated in certain areas within a region, and in certain regions within a state is a phenomenon common to all countries to varying degrees. There are a wide variety of benefits to be derived from locating in centres of economic activity, or growth poles. Access to a large variety of low cost public amenities, a large concentrated local market, and a significant pool of variously skilled labour are attractive properties of growth poles. The ability to exploit external economies generated by both the public and private sectors favours the concentration of industrial activity. Agglomeration promotes the development of specialized industry serving one or a variety of industries in every capacity from the provision of basic inputs to equipment servicing and supply. Many industries require close communications with their markets, which may be centred on the pole, and tend to locate close to market centres. The
tendency of major financial and other commercial business services to be concentrated in population centres further favours the agglomeration of economic activity. Other factors such as the provision of certain desirable locational benefits (i.e., recreational, social, and cultural) of importance in satisfying processes are an additional attribute of growth poles.

As a result of the many benefits to be acquired by locating at the centres of economic activity, growth poles are able to exert a considerable amount of pull in attracting new industry. As the size of the pole increases this propensity to attract new industry and investment also increases. Consequently as agglomeration continues investment activities tend to be deflected towards the pole to the detriment of outlying areas. Often when spread effects are generated by the centre of activity they favour the creation of new lesser or dependent poles of economic activity.

The polarization of economic activity leads to accelerated growth at the pole, and to a lesser degree, throughout a zone of influence of limited area which immediately surrounds the pole. Areas beyond the zones of influence of any growth pole tend to stagnate or decline with respect to the overall level of economic activity.

1Note that for different private and public sector activities continued agglomeration comes to involve diseconomies after a certain point (which varies from activity to activity), a situation conducive to decentralization, or to the establishment of new growth poles at distant locations.
Furthermore, the strong pull of the growth poles may denude outlying areas of their investible capital and their most educated, skilled, and dynamic labour. This impoverishing phenomenon is generally referred to as "backwash" and is a major promoter of inter-regional economic disparities within countries.¹

The extent to which there is a harmony of interests between the various regions of a country or federated state has been a point of considerable controversy for some time. Many countries have witnessed accelerated development in some regions at the expense of others. Examples of regions which are often cited as having endured reduced growth rates to the benefit of other regions include the east coast and west of Canada; the southeast in the United States; the southwest of France; parts of Ireland, Wales, and Scotland in the United Kingdom; the eastern regions of Germany incorporated in Poland and Russia after W.W.I; the northeast of Brazil; and Sicily and the south (Mezzogiorno) of Italy.

The potential for the polarization of growth and backwash in an integrated market between LDCs requires careful consideration of any integration proposal. The scarcity of capital available for public investment in social overhead capital and the need to derive the greatest return on such investments often favours public investment in geographically concentrated infrastructural projects serving major growth areas which ensure relatively high levels of capacity utilization. The additional costs involved in developing "green field" sites, such as the provision of utilities, road and rail facilities, housing, and so on, often act as a deterrent favouring the establishment of new industries at existing centres of activity. Given the low level of development in most LDCs, economies of agglomeration may persist for some time in existing growth poles. Thus, when economic integration is undertaken between LDCs of notably different land and population sizes, at significantly different stages of development and levels of per capita income, and, or with varying degrees of industrial development, the interaction of market forces will likely promote the polarization of economic development and growth in the larger, richer, more developed LDCs to the detriment of the lagging member-states which may suffer seriously from backwash effects as the growth process proceeds. There may be an inverse relationship between the extent of free trade with the more advanced LDCs within the union and the rate of growth of the lagging member-states. The constrictive effects of polarization in "head start"
member-LDCs, when combined with "backwash", may outweigh the other gains to be had by lagging member-states through economic integration. Even when member-LDCs reap net benefits from integration, the occurrence of a notably uneven distribution of net gains may prove to be politically unacceptable to the lagging members.

The attitude of LDCs towards polarization under integration often depends on its effects on them. For instance while Rhodesia would be unresponsive to suggestions of economic integration between all the African LDCs south of the sixth parallel, it may be quite receptive to proposed unions which excluded the Republic of South Africa. In the former case growth would tend to polarize in the Republic of South Africa, while in the latter it would polarize to a significant degree in Rhodesia. For each member of an integration agreement to receive an adequate share of regional industry the regional economy must be able to support the development of at least one growth pole within each member-LDC.

The fear of polarization of the growth process in larger or headstart LDCs, and the occurrence of "backwash" in the smaller or lagging member-states is a major deterrent to economic integration between LDCs. Such fears are basic to the discouragement of economic integration between the LDCs of southern Africa which differ significantly with

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respect to size, population, GDP, stage of development, degree of industrialization, etc. The fear of being unable to secure equal benefits through industrial development was an instrumental factor in Costa Rica's delayed entry into the CACM; and in Bolivia's delayed entry into LAFTA. The collapse of the Rwanda-Burundi customs and monetary union in 1962 was due in great part to the existence of only one major growth pole in the integrated region, that being Bujumbura in Burundi.¹

The Rwandese feared that the majority of integration benefits would go to Burundi due to polarization. The CACM also proved unable to overcome the polarization problem. According to S.I. Fagan:

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even before the July war, the Central American Common Market (CACM) was on the verge of collapse, primarily because of its inability to deal satisfactorily with the problem of unbalanced development.²
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Most new industries located in Guatemala, Costa Rica, and El Salvador, exporting manufactures to Nicaragua and Honduras which in turn incurred persistent growing intra-regional trade deficits and a major balance of payments crisis.²

There can be little hope for the long run survival of integration agreements between LDCs which are unable to contain, or in some way compensate for, polarization effects in particular member-states.


The choice of member-states to be included in an integration agreement is a matter of major importance. It is likely that economic integration between LDCs at comparable stages of development will yield a much smoother, if not faster growth process. Similarities in member-state size (area, population, GDP, etc.), degree of industrial development, and economic dynamism are further characteristics favouring mutual gains from Integration. Polarization is likely when integration is undertaken between LDCs with significant development stage differences.

Integration undertakings may survive polarization conflicts if the beneficiary member-state(s) is (are) willing to undertake compensatory or corrective measures designed to produce a greater degree of balance in the distribution of integration benefits. This was the situation in the case of the East African Common Market (EACM) where Tanzania repeatedly charged that economic activity and industrial development were polarizing in Nairobi, Kenya. Tanzania successfully insisted that it be permitted to levy taxes on many manufactures imported from Kenya in order to afford her the opportunity to develop her industries to a level comparable with the current level of Kenya's industry.

The danger of polarization and backwash in large

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inclusive integration movements may make the formation of a smaller, more select integration membership desirable. An effort somewhat along these lines is the subregional integration movement within LAFTA which lead to the formation of the Andean Integration Group. This subregional integration endeavor is aimed at increasing the extent of small member-state integration benefits by permitting them to grant one another special privileges and concessions.

The significance of differences in member-state size, stage of development, degree of industrialization, and so on, is nowhere more apparent than within LAFTA. Member-state populations range from 2.4 million in Paraguay to 93.2 million in Brazil. Geographic land area ranges from 72,172 square mile in Uruguay to 3,280,600 in Brazil. Member-state GDPs vary anywhere from $.52 billion in Paraguay to $36.1 billion in Brazil. Similarly per capita GDPs also vary widely from as low as $170 in Bolivia to approximately one thousand dollars in Venezuela.\(^1\) Such differences make mutual equal gain impossible on the basis of equal treatment of member-states. To get around this problem LAFTA has developed a three class system of member-state treatment.\(^2\)

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\(^1\)Sources: data given in the Annual Supplements of the Quarterly Economic Review for 1971, and Table 1 in the statistical appendix to W. Krause and F.J. Mathis' Latin America and Economic Integration: Regional Planning for Development, Iowa City, University of Iowa Press, 1970.

\(^2\)For instance see Krause and Mathis, ibid., pp.36-37, footnote, p.9.
have been classed as most developed (Brazil, Mexico, and Argentina), less developed with insufficient state markets (Chile, Columbia, Peru, Uruguay, and Venezuela), or relatively less developed (Bolivia, Ecuador, and Paraguay). The economically weaker member-states in the two less developed groups are granted special treatment with respect to the implementation of reductions in trade restraints, the solution of balance of payments problems, and the introduction of new or the expansion of existing industries.

The granting of special treatment to lagging member-states, was also made in the case of the CACM (for Honduras and Nicaragua) and in the EACM (for Tanzania and Uganda). In these particular two instances the granting of special treatment was made a requirement for continued integration membership by the lagging members.

Whether or not the achievement of equal mutual gain from economic integration is a realisable goal for economic integration is a debatable subject. However, there can be little doubt that unless some provisions are made for the special treatment of lagging member-states, integration between LDCs differing significantly in economic size, dynamism, and stage of development will be detrimental to the lagging states. Assurances of sufficient support in both the handling of short run transitional problems, and in the maintenance of long run interests must be granted so as to ensure a satisfactory degree of mutual gain.
(B) Balanced Benefits, Reciprocity and Transitional Problems

One of the principal sources of gain for integration of member-states arises from the granting of preferential access to an integrated regional market. Member-states which are enabled to increase their inter-member trade benefit from concessions granted by their fellow member-states. These concessions include the agreement to purchase imports from higher cost producers in other member-states, the transfer of markets previously retained for domestic producers, the sacrifice of the various social benefits derived from displaced industry, and the forgoal of import duties and revenues on member-state trade. Each member-state reciprocates to effectively varying degrees in the granting of such concessions. The term "reciprocity" has been coined to refer to the principle under which all member-states in an integration agreement extend to one another mutual counter-balancing concessions. When the extent of the benefits received and the concessions made achieve a certain degree of imbalance for member-states the losing state will invoke the reciprocity principle as a basis for demands for increased concessions from those states to which excessive concessions are regarded as having been made.¹

¹The vague nature of the idea of the degree of imbalance discussed here is basic. It is not unlikely that different member-states will evaluate the concessions and benefits made and received differently. There would be little point in undertaking integration if the benefits received by a state were equal in value to the concessions made by the state since there would be no net gain. The objective is for all member-states
The concepts of reciprocity and of equal distribution of integration benefits have come to include four basic aspects of economic integration for development, namely:

1. equilibrium in inter-member trade balances
2. comparable long run growth rates
3. shared industrial development
4. satisfactory comparative development levels.

These four aspects are fundamentally interrelated, for instance, equilibrium in inter-member trade balances will not be satisfactory to all members if industrial development is concentrated in only a few member-states. Trade content will involve a disproportionately large manufactures component for some states, and an overly large increase in the traditional and, or primary component for others. This is unacceptable where marked preferences for industrial development exist.\[1\]

Trade balancing and industry sharing may well enable lagging member-states to close the development gaps between them and the "head-start" member-states. The stipulation that long run growth rates be comparable is often aimed more at ensuring that the larger and more developed member-states

\[1\]Problems related to trade composition and the sharing of industrial development have been recurrent in LAFTA. Such problems were also fundamental to the conflicts which rocked the CACM in the late 1960's.
do not outpace the lagging members (which would lead to increased polarization) than at equilibrating growth rates. Where the economic size of member-states varies considerably it is not unusual for the smaller, weaker members to unite as a bargaining bloc in their efforts to press for a more fair share of integration benefits. This was the case for the Andean Group countries within LAFTA and the ECCM countries within CARIFTA.¹

The static "trade-creation" and "trade-diversion" aspects of economic integration are most significant in the short run reciprocity and adjustment decisions which determine whether or not an integration agreement will endure to reap potential long run benefits. "Trade creation" is a major disruptive shock in the initial short run transitional period and it is essential that satisfactory policies and programs be initiated from the outset so as to cushion the impact of this shock on the member-states.

The transition from autonomy to economic integration and complete free trade between member-states should not be made rapidly, but rather gradually over a predetermined period of time. This would enable producers to rationalize their production operations in order to face the pending competition of member-state producers. A system of tariff elimination

which would employ periodic tariff reductions would expose producers to increased competition gradually thereby enabling them to adjust. Were all trade restraints to be removed on a specified date such a "belt tightening" adjustment would probably involve excessively higher short run costs, and in some cases would be impossible. A phased adjustment period would enable inefficient firms to adopt alternative production techniques, or to move into alternative lines of production activity. A gradual phase out of non-transferable capital would reduce the capital costs of transition. The use of a transition time period would make it possible to establish public programs such as accelerated depreciation allowances, assistance or conversion grants to private industry, the provision of easy credit for industrial conversions, the expansion of existing and the creation of new production facilities, technical assistance programs, manpower retraining and relocation programs, financial assistance programs for displaced labour, and so on, which would ease somewhat the burdens of transition. Note that the funding of such programs could be undertaken by means of a fund from which disbursements could be made as the needs arose. This type of funding approach has been adopted by the EEC. Contributions to such a fund need not be proportionate, but preferably, would involve proportionately larger contributions by those states likely to benefit more from integration, particularly in the short run. Such private and public efforts could significantly reduce the factor displacement cost of
transition.

There are serious displacement costs involved in the use of an immediate or overly rapid transition. Similarly the use of excessively long transition periods involves the opportunity costs associated with the delayed achievement of a more efficient regional production structure. The appropriate transition period would fall between these two extremes.

There are two basic ways of reducing the tariffs between member-states of an integration agreement over a specified time period. One is a system of automatic, across-the-board, fixed percentage, tariff reductions at fixed intervals. The advantages of this system include the fact that it does not bias the new allocation of resources and production by favouring some industries and resources over others. Another advantage is that it virtually rules out political manipulating and gamesmanship. It permits market forces to determine the new allocation of production and resources. Furthermore, it avoids the possibility of bogging down in annual tariff-bargaining rounds on reciprocity grounds.

The second way employs a system of tariff-bargaining according to a preset timetable at the end of which all trade must be free. The principal advantage of this system is that it permits members to take action more appropriate to the particular position of specific industrial sectors, and member-state reciprocity positions. Also, free trade can be extended to the most competitive industries and sectors first,
and then to lesser and finally to the least efficient. In this way industries requiring a major restructuring can be assured protection over the lengthier-period required. This process provides added safeguards for transitional and reciprocity problems which may be required as an inducement for the membership of hesitant states.

Both of the two basic systems have advantages and disadvantages and may be combined to varying degrees. Examples of integration agreements employing the automatic system include the EEC, CACM, and the Arab Common Market.¹ The tariff-bargaining system is employed by LAFTA,² but has lead to progressively smaller tariff concessions over time due to the increased cost of individual concessions and disputes over reciprocity. Within LAFTA deficit members in inter-member trade have tended to decelerate their programs of trade liberation through recourse to the use of extensive safeguards included in the Treaty of Montevideo.²

¹ Members of the Arab Common Market (ACM) include Kuwait, Egypt (U.A.R.), Iraq, Syria, Sudan, and Jordon. For further background details see M. Diab, "The Arab Common Market", Journal of Common Market Studies, VOL IV NO.3, 1966, pp.238-50. NOTE the ACM is actually a free trade area.

² Dr. Prebisch has suggested that it would be better for the surplus member-states to accelerate their trade liberation programs. However, it appears that they are unwilling to accept the real costs which this would involve. "Surmounting Obstacles to a Latin American Common Market", in M. Wionczek's Latin American Economic Integration, Praeger, New York, 1966, chap. 13.
Where the short run impact of economic integration affects certain members particularly adversely and where trade balancing in the immediate future is not possible without slowing down the integration process, it may be to the surplus members' benefit to reimburse the deficit members through the use of special transfer payments or taxes, trade credit, loans, and other compensatory fiscal measures.

Where integration agreements involve LDCs at significantly different stages of economic development it may be more appropriate to employ a system of multiple transition periods where lagging members are required to remove restrictions on inter-member trade over a longer period than the more advanced members. Such preferential treatment is being offered to the ECCOM group within CARIFTA, to Ecuador and Bolivia in the Andean Group, and to Portugal in EFTA. Such catch-up periods are meant to assist the lagging member-states in narrowing the development and competitive gaps between themselves and the more advanced member-states. In a similar vein Greece and Turkey have been given twenty-two years to make the transition to full membership in the EEC. Also, under the current expansion of the EEC longer transition periods are to be given to the less developed EFTA members (Portugal and Iceland) for the achievement of free trade in manufactured goods between EFTA and the expanded EEC.

1For further details see 'Business International S.A., The EEC on the Move, Geneva, June, 1972.'
A traditional tool used to solve the balance of payments problems in LDCs and to protect major or infant industries from excessive import competition is the introduction of trade restraints, (tariffs, quotas, embargoes, etc.), on imports. This is no longer possible under economic integration when the imports concerned come from member-states, unless special exceptions are made. A number of integration agreements between LDCs include "escape clauses" which permit under varying conditions the temporary waiving of trade concessions on particular products or to particular member-states. Such clauses may be made a prerequisite for integration membership. However, such clauses must be regulated in use and regarded as a last resort for their excessive use would undermine the basis of reciprocal trade concessions. Also the excessive inclusion of escape clauses may adversely affect the extent of the investment incentive effects desired from integration by raising doubts as to the permanency of any trade concessions granted, particularly if the clauses are frequently invoked.

Most integration agreements exclude certain goods from free trade status. This is most common in the treatment of agricultural products. In some instances the exclusion is regarded as being of a temporary nature, while in others the exclusions are permanent. Such reservations are one way

1Such clauses are included in the integration agreements of LAFTA, the ACM, and the Andean Integration Group.
of minimizing the displacement costs of integration.

Where reciprocity cannot be achieved through trade balancing in the absence of exclusion categories and escape clauses, various systems of fiscal transfer may be desirable.¹ One such system would employ the use of transfer taxes paid by the producer and distributed among the member-states according to their consumption of the annual output. Another might permit member-states with inter-member trade deficits to levy a duty on member-state imports equal to some proportion of the common external tariff, or the respective third country tariff in the case of an FTA.² Such duties would be levied for as long as the deficit remained and should be disbursed in a manner conducive to the expansion of exports. Another might employ fiscal transfers proportional to bilateral member-trade deficits to be disbursed to damaged industries in the form of subsidies for production modernization or conversion.

When integration is undertaken between LDCs with significant development differences it is essential that the weaker members be guaranteed that they will be granted special considerations so as to enable them to upgrade their competitive

¹Such systems were employed in the Federation of Rhodesia and Nyasaland CU, and are currently quite significant to the three smaller states of the South African CU.

²The East African Community (EAC), which succeeded the EACM in 1967, employs a system of transfer taxes whereby deficit members in inter-member trade can impose a tax of up to 50% of the external tariff, within certain limits.
positions and to avoid the polarization of economic activity in the stronger member-states. This may require the planned distribution and development of countervailing growth poles in the lagging member-states through the construction of essential infrastructure, the provision of low cost or subsidized utilities, the development of low cost industrial sites and estates, the establishment of state enterprises, the organization of town building programs, and the granting of effective fiscal incentives to private industry including tax holidays, special depreciation allowances, grants, subsidies, low growth pole tax rates, government minor partner programs, the backing of loans, and other credit assistance. Such endeavours would create external economies conducive to further development and growth. The major problem with this type of program is the great cost involved which lagging members couldn't manage alone. Compensatory fiscal transfers could absorb some of the cost. Further assistance could be acquired through preferential treatment in regional foreign aid disbursements. Where an integration movement receives significant support from particular DCs it may be possible for the lagging member-states to secure grants and low interest soft loans for the development of growth poles.¹ The

¹This is but one of many ways in which DC sponsorship of an LDC integration movement can prove invaluable. Much of the success of the CACM can be attributed in part to the political and financial support given by the United States.
ability to offer fiscal incentives significantly beyond a common code level would enable the lagging members to deflect new industries to their growth poles, a phenomenon which should reduce the marginal urgency of direct government activity. If the integration agreement provides for agreed specialization in different industries and, or the horizontal and vertical specialization of major industries, the cost of developing countervailing poles may be further reduced and passed on in part to the major growth poles in the more advanced member-states. Needless to say, despite these possible forms of assistance, the development of countervailing growth poles will probably place a significant financial burden on the weaker members. Ideally an integration agreement between LDCs at different stages of development would embody a special agency with a sizeable budget (financed mainly by the more developed members) charged with the task of reducing inter-member development disparities.¹ The principal problem with this proposal is that it requires the relatively more advanced LDCs to subsidize the development of lagging LDCs through large fiscal transfers, an undertaking which many LDCs are either unwilling or unable to accept due to their limited fiscal means in relation to their large development require-

¹ This function was performed in the CACM by the Central American Bank for Economic Integration (CABEI). Currently regional development matters are a major focus of attention within the EEC. Italy has stressed the importance of this aspect of integration since the formation of the Community. The recent entry of the United Kingdom into the EEC is expected to lead to even more concern with the development of backward regions.
ments. In cases where growth has already begun to concentrate to a certain degree in the lagging member-states, a marked acceleration in the regional rate of growth may lower the long run cost of stimulating autonomous growth at the fledgling poles. However, where integration does not spur a notable increase in regional economic activity in the short run the cost of developing countervailing growth poles will be more prohibitive. Where agreements do include provisions for the development of countervailing poles it is essential that they be located in those parts of the lagging states where the potential for eventual self-sustained growth is the greatest.

In some integration agreements the economic area may be too small to sustain a major growth pole in each member-state for some time to come. Under such circumstances other forms of integration benefits must be assured. For instance, where lagging members have a marked comparative advantage in certain primary activities it may be mutually beneficial for the leading states to discontinue such activities, or to curb their expansion in favour of alternative activities, and to allocate the supplying of such markets to the lagging members. Joint ownership in major industrial enterprises could be another means of distributing the benefits of integration, as would the preferential entry of labour from the lagging states to the labour markets of industrial growth centres. In the latter case wage remittances might stimulate the level of economic activity by increasing the level of effective demand.
in the lagging member-states.  

The need to distribute the costs and benefits of transition, and to assure mutual gains from economic integration over both the short and long runs, bring out a number of aspects of integration between LDCs which are particularly significant. Firstly, it appears that the role to be played by the governments in economic integration is much more significant in the case of LDCs than DCs. This may make integration between LDCs more difficult because their governments are relatively less equipped for the task. Secondly, it is essential that integration agreements, and the administrative structures and tools which they employ, have a sufficient degree of flexibility to handle the numerous problems and adjustments which will arise over time. Above all this requires the creation of an effective mechanism for the satisfactory settlement or adjudication of inter-member disputes. Thirdly, integration between LDCs will require a willingness to make concessions for the sake of long run benefits, particularly on the part of the stronger, more developed member-states, for integration will not survive unless all of the participant states secure a satisfactory level of net benefits. Finally, just as a lack of reciprocity will lead to the breakdown of an integration movement, so may excessive insistence upon reciprocity.

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1 In the case of the Federal CU between Nyasaland (Malawi) and the Rhodesias this type of preferential access was granted to Nyasa labour in the more industrialized Rhodesias. This type of labour export contributed over 10% to African
(C) Tariff Revenues under Integration

If the revenue yield of the tariff as a whole is substantial for one or more of the countries entering into customs union, this will complicate the problem of negotiation of the union.

J. Viner.

Professor Viner's observation is valid for all forms of trade liberation integration. Tariff revenues have traditionally been an important source of revenue for the governments of underdeveloped countries and continue to be so, particularly in Africa. The loss of potential government revenues through integration is one of the basic costs of union. The problem is that such costs are not born evenly by the member-states.

In the formation of a free trade area all member-states retain their own tariff systems and rates with respect to imports from third countries. However, when "trade deflection" occurs the tariffs of the high-tariff member-states become ineffective on deflected commodities. The governments not only fail to secure the desired level of protection or consumption deterrence, but also lose the revenue produced by such tariffs so that "trade deflection" involves a double cost. Consequently, some member-states receive tariff revenues from imports paid for and consumed by other member-states to the former's gain and the latter's


J. Viner, The Customs Union Issue, op. cit., p. 65, top.
loss. Where such revenue losses are significant compensation must be paid. The most commonly employed tool to minimize "trade deflection" is a system of origin of value certificates. Under this system third country imports reexported to member-states without further processing are denied free trade status. Free trade between members of the FTA is restricted to those commodities in which the member-state value-added exceeds a prescribed minimum proportion.¹

The higher forms of integration avoid the "trade deflection" problem by adopting a common customs nomenclature and set of third country import tariff rates. This system facilitates the levying of duties on third country imports at the point of entry into the customs union with free trade in such goods between member-states. However, this system may also give rise to tariff revenue problems. Where some member-states are completely land-blocked within the customs union, or where the minimization of transport costs favours the importation of third country imports through other member-states, the collection of customs duties at the point of entry into the union results in a loss of tariff revenues by the member-states within which the final consumption takes place.²

¹The proportion most commonly applied is fifty per cent. Both EFTA and CARIFTA employ this rate.

²Examples of land-locked integration member-states include Lesotho in the South African Customs Union, and Bolivia and Paraguay in LAFTA. Examples of integration member-states whose location favours the importation of third country goods through other member-states include Uganda in the EAC, the Central African Republic in UDEAC, and Botswana in the South African Customs Union.
In such circumstances it is essential that some system of tariff revenue distribution be incorporated in the integration agreement. A tariff revenue sharing formula might be based on the member-states' proportions of the total membership consumption of the various dutiable goods, or, where such data is difficult or costly to accumulate, according to proportions of total membership population, or to agreed percentages, and so on.

One might regard tariffs as a levy for the granting of access to foreign markets. Under "trade diversion" the importing member-state adopts a high-cost or supply and forgoes the tariff levy. Under "trade creation" the importing state suffers the displacement of domestic producers and again forgoes the tariff levy. Where the distribution of production expansion is unbalanced those member-states with deficits in their inter-member trade will also suffer proportionally greater tariff revenue losses, assuming that the incidence of "trade creation" and "trade diversion" are equally distributed.

Where tariff revenues are an important source of member-state government revenues, the short run revenue effects of integration may act as a deterrent to union. Potential sources of government revenue may be quite limited for some LDCs so that to concede the right to levy duties on member-state imports, and to agree to the joint setting of individual commodity rates under integration may effect-ively limit the extent of government activities. Such
concessions may be unacceptable hence ruling out economic integration, unless some alternative means of finance can be assured, such as a system of distributing tariff revenues so as to compensate particular member-states for their revenue losses.¹

In situations where a large proportion of tariff revenues come from duties on a small number of commodities, it is not unlikely that such tariffs will be retained as long as possible.² This may be particularly true when the integrated market could only support one plant producing such commodities, the distinction between gainer and losers being more apparent.


²For instance in the CACM while the free trade agreement had been carried out to the extent of covering 98% of the items included in the common nomenclature in 1966, the remaining 2% accounted for 20% of the region's imports and about 40% of the combined tax revenues of Central America. See J. H. Crow, "Economic Integration in Central America", Finance and Development, VOL.3 NO.1, 1960, pp.58-66, p.64, middle.
(D) Problems in Employing a Common Tariff Wall

One of the principal sources of gain under economic integration is preferential access to an integrated regional market. The extent of such gains depends on the degree of the preferences extended which in turn depends on the height of the effective tariffs levied on third country imports. Where tariffs are progressive according to the degree of manufacture and, or favour imports of inputs over finished products, it is probable that the effective rate of protection will be higher and therefore the potential gains to domestic producers all the greater.

Article XXIV of GATT permits the formation of customs unions and transitional forms with the provision that «the duties and other regulations of commerce imposed at the institution of any such union or interim agreement in respect of trade with contracting parties (to GATT) not parties to such union or agreement shall not on the whole be higher or more restrictive than the general incidence of the duties and regulations of commerce applicable in the constituent territories prior to the formation of such union or the adoption of such interim agreement, as the case may be.»

What the article fails to elaborate on is the measure to be

\[\text{\footnotesize{\textsuperscript{1}}Taken from Article XXIV of GATT, section 5(a); my brackets and inclusion. Section 5(b) covers FTAs and requires that duties and other regulations of commerce be no higher or more restrictive than their preintegration counterparts. Article XXIV is reproduced in its entirety in Appendix II of the paper.}}\]
employed in determining the "general incidence". The most common interpretation of the requirement is that the "average level" of member-state tariffs on third country imports must be no higher than the average of the members' pre-integration rates. The problem with this interpretation is that considerable disagreement has developed over the choice of the average and incidence measures to be employed. GATT has been notably mute with respect to clarifying the matter.

In most cases of economic integration involving customs unions, before common tariff rates can be determined it is necessary to develop a common nomenclature for customs purposes. Often the customs systems of different member-states involve different customs definitions, rulings, classifications, etc. The use of fixed and ad valorem tariffs, as well as various combinations of the two, makes the determination of actual rates difficult, particularly when classifications vary according to different measures such as the British and metric systems, different product specifications, or different end uses. In the case of LAFTA the development of a common customs nomenclature and tariff system has proved particularly difficult. The various member-states levy a variety of fiscal charges in addition to the actual tariffs. Often the tariffs are based on widely differing types of prices, such as cif, fob, exchange adjusted, appraisal value,

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1 See the interesting comments of G. Magariños in this area in his "Integration Instruments and LAFTA Achievements" in Miguel Wionczek's Latin American Economic Integration, op.cit., chap.7.
or government fixed standard prices for customs purposes. When these complications are further compounded by the widespread use of non-tariff measures such as import licences, quotas, exchange controls, multiple exchange rates, etc., the task of developing a common tariff system becomes monumental. It is interesting to note that in the case of the CACM the development of the Central American Uniform Customs Nomenclature was undertaken and completed several years before the actual integration agreement was made. Where integration is undertaken between LDCs with a common colonial-metropolitan background, such as in East Africa, or the francophone states of Central and West Africa, the adoption of a common nomenclature will probably be much easier.

The task of adopting common tariff rates invariably gives rise to conflicts of interest between the member-states. While it is realized that the higher the level of the common tariff wall the more likely it is that integration will attract increased foreign and domestic industrial investment, it is also realized that the output of such industries may also bear a higher commodity price than third country imports. Member-states will likely favour high tariffs to protect their existing or planned major industries, while other member-states which import the products of such industries will favour lower tariff rates. The former would resist abandoning their customary high tariffs which might lead to the market displacement of the industries
previously developed under protection, while the latter would object to the higher prices created by the use of more protective tariffs. Such conflicts of interest may be particularly serious were they to accrue over major intermediate industries for they would affect the efficiency of related industries. ¹ Where tariffs are principally of a revenue nature member-states will likely be reluctant to lower them, particularly if alternative sources of revenue are limited. When tariffs are levied at different rates on different commodities for different reasons, the adoption of a common tariff system is bound to give rise to conflicts of interest. GATT requires that the general incidence or the mean incidence of post integration trade restraints be no higher than the pre-integration levels. It is possible to increase the level of effective protection while keeping the average nominal tariff level the same. However, such an achievement would likely require cooperation and reciprocal concessions by the member-states. In the case of the EEC the adoption of a comprehensive common tariff structure required some very hard bargaining and major concessions by the member-states, a process which really tested

¹This may be particularly important to export sectors which employ as inputs the products of protected industries. Consequent higher production costs could place them at a competitive disadvantage in world markets.
the cohesiveness of the integration membership.¹

The GATT does not specify how the common tariff system of a customs union is to be arrived at. Consequently a variety of methods are possible. The CACM employed a system of periodic negotiations aimed at arriving at a common system within five years of its initiation. The system proved to be both politically demanding and drawn out. For the majority of EEC commodity trade categories the common tariff adopted was the arithmetical mean of the four tariffs in force in the six member-states on January 1st, 1957 (Benelux having a uniform system). The transition to the common system was achieved through the use of an automatic time schedule, a mechanism favoured for its avoidance of potential conflicts and delaying tactics by member-states suffering short run hardships. However, the member-states withheld from this system a large number of commodity trade categories deemed by the states concerned as being of major economic importance. Tariffs for these commodities were set through a special tariff bargaining series of conferences in which only government representatives took part.

It is interesting to note that both the common tariffs of the CACM and the EEC exceeded their preintegration averages.¹

¹For an indication of the potential difficulty involved in adopting common tariffs on third country imports to which member-states are sensitive see chap.X of L.N. Lindberg's The Political Dynamics of European Economic Integration, Stanford, California, Stanford University Press, 1963.
C.M. Castillo estimated that the average tariff rate of the CACM rose from 42% to 48%, with the greatest increase occurring in the tariffs on finished consumer goods, the average rising from 64% to 81%. The common EEC rates were inflated by the use of legal tariff rates, rather than those actually applied prior to integration, on a number of products. Furthermore, the rates employed in the calculations for Italy and Germany were those of a higher schedule than that applied just prior to integration. In addition the Benelux tariff on a wide variety of chemicals was raised from a maximum of 3% to 12% prior to the averaging calculations. Had the EEC employed a system of tariff weighting by trade volume it is likely that the average tariff level would have been lower since the two higher tariff members (Italy and France) accounted for about 40% of total membership imports.

In the formation of a customs union between LDCs it is essential that there be a flexible system for the

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3 Walsh and Paxton, *ibid.*., pp. 44, middle.
renegotiation of common tariff rates. Such a system must enable member-states to respond to urgent needs for tariff changes within a short period of time. In the case of the CACM the process of tariff renegotiation was slow, cumbersome, and facilitated bargaining for concessions, a situation which encourages the correcting of emergencies by non-tariff measures.¹

Many LDCs employ extensive systems of non-tariff trade controls such as quotas, prohibitions, various systems of standards, import licences, special fees, import monopolies (often state held), and so on. Unless each member-state retains such restrictions as exemptions from internal free trade, it will be necessary for the members to come to an agreement on the treatment of such regional imports.

If the customs union is to be completed, common rules governing trade with third countries must also be worked out in addition to the common customs tariff(2): establishment of the origin of goods, application of anti-dumping and compensating duties, principles governing the definition of customs value, common regulations in the reprocessing and transit fields, setting up a common system of quantitative limitations, working out a procedure for regulating the community tariff quotas, elaborating common rules for uniformity in applying the common customs tariff.²

¹The EAC employs a system of exemptions to the common external tariffs given that such are agreed to by the partner states. Whether or not the system will lead to problems similar to those encountered by the CACM is questionable, particularly in light of the recent political friction in East Africa.

These duties have been extensively carried out within the EEC to the extent that the Six share a common trade policy. In both the Dillon and Kennedy Rounds of GATT the EEC bargained as a single trading unit. Whether or not LDCs forming customs unions can be expected to follow a common trade policy is another matter. The great majority of LDC trade is with DCs, exports being concentrated with respect to both commodity composition and final destination. Where the composition and final destination of individual member-state exports differ significantly the CU as a group may be less demanding on matters affecting only one or two states than would the states themselves. While the member-LDCs must act as a group in GATT matters and on general questions of import entry, more individual matters such as bilateral trade agreements, positions with respect to individual commodity agreements, and foreign relations trade problems would likely be more satisfactorily handled on a national basis.

(E) Cooperation in Development Planning and Activities

The realization of many of the benefits of economic integration mentioned in chapter two of this paper depends to varying degrees on the harmonization or coordination of member-state development activities. There is a danger under economic integration that investors, be they public or private, may plan their activities on the basis of sole preferential access to the entire regional market, or on the assumption that they are the only investors planning
production activities to meet the regional shortfall of a particular industry's products. This failure to take account of investment activities in each of the other member-states involves the risk of investment duplication and the creation of idle excess capacity with consequently higher cost and lower efficiency levels. These possibilities favour the coordination or harmonization of government investment activities and of the special incentives created by the member-governments for the undertaking of particular desired activities by the private sector. Such endeavours would both increase the marginal return on government production investments and reduce the fiscal costs of inducing the establishment of particular industries. In the situation where a number of industries are mutually dependent on one another's existence for their establishment none will be undertaken in one another's absence. In this case co-ordinated investment activities are essential and may require extensive action by the member-state governments concerned. This may be particularly important when the industrial undertaking of one member-state requires the development of the resource industry of another, or the up-grading of certain infrastructure. Coordination of development efforts may also facilitate increased horizontal, and, or vertical

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1 This problem has arisen in the EAC, as in the textile industry, and in the CACM, as in petroleum refining and the pulp and paper industry. The phenomenon is also common in LAFTA. The costs of such excess capacity may be reduced to varying degrees where integration stimulates an acceleration in the rate of economic growth.
specialization. Finally, there is the whole idea of developing complementary production structures, particularly with respect to industrial development, which is a fundamental aspect of economic integration between LDCs. Such complementarity makes the coordination of member-state development activities essential.

The extent of cooperation in development planning may range anywhere from periodic consultations in which the member-governments outline their planned development activities with no obligation to modify them, to the creation of a supranational planning authority responsible for the formation of a regional development plan and equipped with extensive regulatory and inducement powers over both the public and private sectors of the member-states. Probably the most acceptable form would be a system which required an annual confrontation of national development plans prior to their publication which, by mutual scrutinization, would reveal inconsistencies and conflicts in individual plan projects and programs. Where particular projects required monopolistic access to significant portions of the regional market in order to be viable or highly efficient, a system of agreed plan modification and dovetailing would be desirable. The regional markets for basic industries might be reserved for special development programs requiring mutual agreement within a ministerial committee, or be subject to endorsement by an independent regional authority responsible for the efficient structure and operation of particular industries.
An effective system of coordinated regional planning would greatly expand national planning horizons, while at the same time facilitating the detection and avoidance of project overlap and duplication.

For most LDCs it is highly unlikely that a supranational planning authority would be acceptable (it creating more problems than it would solve). However, a council of heads of state or government ministers responsible for the development of major industries is a possible substitute. ¹ In a system employing the annual confrontation of national development plans, an independent secretariat responsible for comparative studies of individual development efforts, studies of potential areas of joint endeavour, the formation of strictly regional development plans, and the pointing out of inconsistencies, overlap, duplication, and possible complementarities in national plans, would probably prove invaluable as an impartial advisory body. Such a body would have to maintain a regional view, though not to the extent of being adamant in which case much of its advisory influence would be lost.

The need for the coordination or harmonization of national development programs is particularly great for integration between LDCs. The existence of extensive market imperfections and structural disequilibria in LDC economies

¹Such a council would require an able secretariat to carry out studies ordered by the council.
favours corrective government intervention. The familiar role of the LUC government as the principal entrepreneur makes this all the more the case.

There are a variety of problems associated with coordinated development planning. To begin with, since the number of negotiations to be conducted \( \sum \frac{1}{i(i-1)} \) increases with the number of member-states involved \( (n) \) at an increasing rate, the process of negotiation of joint developments, plan modification, and monopoly industries becomes extensive and increasingly more involved. \(^1\) Also, differences in priorities lead to differences in the social value placed on individual projects or programs. This phenomenon makes negotiations all the more difficult. Sovereignty issues, nationalism, and suspicion further complicate the process of plan coordination to the extent that some LDCs may be unwilling to go beyond mutual consultation, or even to inform their fellow member-states in advance of their planned development programs.

\(^1\) In the case of LAFTA the harmonization of development plans would require a process involving 55 sets of negotiations varying in scope and detail, each set being dependent to varying degrees on the other 54 sets simultaneously being undertaken. COMECON has reduced this multiplicity problem somewhat by conducting negotiations for joint projects and plan coordination through a system of bi-lateral agreements between only the principle member-states involved or affected. Since not all member-states are involved to a similar extent in individual projects this process makes the coordination problem less difficult. The COMECON system employs a series of technical committees required to work out specialized and mutually dovetailed production programs between principal member-states in a number of key industries. See H. Kitamura, "Economic Theory and Regional Economic Integration of Asia", The Pakistan Development Review, VOL. II NO.3, 1962, pp.485-504, pp.502-503.
The problems mentioned above are compounded by a number of technical constraints. First, the extent and accuracy of available data is quite limited in most LDCs. Furthermore, the definitions, categories, and areas of data collection also vary so that much of the data requirements are incomplete. These problems are further compounded by critical shortages of the high level manpower required to carry out the detailed studies on which comprehensive planning is based. Such constraints have lead economists such as Dell to conclude that while comprehensive detailed development planning cannot be undertaken in the short or medium term, a program of rough sectoral development coordination is feasible and may well yield considerable benefits to the member-states.¹

The widespread occurrence of government intervention and planning required to maximize the benefits to be derived from economic integration need not reduce the degree of competition. Rather it should redirect competition to those areas in which it would be most beneficial by the careful application of deterrents and incentives.

In the case of LAFTA, the failure to develop a system for regional planning and for the coordination of national development plans proved to be a major stimulant to the formation of the Andean Integration Group as a

¹See S. Dell, A Latin American Common Market?, op.cit., chap.VIII, and particularly pp.147-49. COMECON is increasingly pursuing this type of development planning coordination.
subregional integration movement. The smaller LAFTA members regarded negative integration as inadequate for the assurance of balanced benefits, and increasingly grew to fear the polarization of growth in the larger, more developed member-states. The stronger members made no significant efforts for the instigation of joint development planning despite repeated requests for such by the Andean states.

The desire for balanced benefits in the absence of regional planning may be fulfilled in part through a system of "agreed specialization" in industrial development. Under this type of agreement the establishment of specific industries is reserved for particular member-states which are to supply the needs of the regional market at competitive prices. Such arrangements are very important when even integration only yields a small regional market, as in the Central American case. There are numerous reasons for undertaking "agreed specialization" including:

(1) it facilitates the most extensive achievement of economies of scale on the basis of the regional market thereby benefitting all member-states through the lowest possible unit costs.

(2) it reduces the risk involved in extensive investment in major industries which are subject to frequent technological changes, by insuring a market for the industries' output which would not likely be there were the member-state producing for the world market.

(3) it is one way of assuring adequate supplies of specific commodities (i.e., avoiding supply and foreign exchange shortages) without incurring the high unit costs associated with production on the basis
of an inadequate sized national market.

(4) it is a means of assuring complementarity in industrial development while avoiding duplication, and is a means of creating new networks of forward and backward production linkages between the member-states.

(5) it is one way of assuring that industrial development does not polarize excessively in larger, more advanced member-states.

It is interesting to note that while LAFTA has failed to develop a system of regional development planning or plan coordination, it has developed a system of "regional industries" which calls for the specialized development of major industries which are to be shared equitably among the member-states. Such industries are to be developed on a preferential basis under the protection of a common external tariff. The first three industries to be included under this program are basic metals, petrochemicals, paper and cellulose.

Programs of "agreed specialization" give rise to a problem which is recurrent in economic integration between LDCs, that of the efficiency-equity trade-off. Ideally agreed specialization would be according to comparative advantage. However, it may be that the pursuit of strict comparative advantage would lead to an inequitable distrib-

\[\textit{For an interesting model of "agreed specialization" see K. Kojima, Japan and a Pacific Free Trade Area, op.cit., pp. 58-67.}\]

\[\textit{This is the result of the recent Resolution #100 of the Montevideo Treaty. It is not known at this time whether or not the first of such industries have yet been begun.}\]
bution of regionally based specialized industry, a situation unacceptable to those states which would fail to receive an equitable share of such industrial development. In such cases it may often be necessary to give priority to reciprocity requirements and to locate the regional plants in member-states having few comparative advantages for such industries. However, another problem arises. When member-state governments undertake the establishment of such industries social benefit-cost evaluations may make the known suboptimal location of the industries acceptable where private evaluations wouldn't. However, where domestic or foreign private investors are the principal entrepreneurs insistence on industrial location according to reciprocity requirements may lead to a lower level of investment in such industrial activities. The latter problem may be particularly important in the case of integration between small, less developed LDCs such as those found throughout Africa. Such conditions require varying degrees of flexibility in allocation criteria and the means by which reciprocity is assured. It is also likely that the occurrence of locations having pronounced comparative advantage for the establishment of particular industries will be more the exception than the rule in the case of the integration of a geographically large region. Such a situation would tend

Particularly in small integration movements where some participant states have marked leads in industrial development. The CACM and CARIFTA are notable examples.
to reduce the opportunity costs of reciprocity, but may also make the choice of location for such major industries all the more difficult due to the multiplicity of comparatively advantageous industrial sites. It may be preferable under such circumstances to allocate such industries in groups, one or more going to each member-state, so as to reduce the reciprocity problems common to a one-by-one allocation system.

The CACM employed an "integration industries" agreement which was applicable to those industries which required to supply the entire regional market in order to be economically feasible. Under the agreement industries granted this status by the five member-states received sole free-trade status within the Market for the goods which they produced. While other industries could be established within the Market without preferential treatment, they would be subject to the common trade restraints on third country imports initially (though these would be uniformly reduced to zero over a ten year period). No member-state was to receive a second integration industry before the others had one each, nor a third before all the others had a second, and so on. In this manner reciprocity was to be ensured, while preventing the establishment of a proliferation of small scale, high cost plants throughout the region. Extensive privileges were extended to the integration industries for a minimum period of ten years during which they were to consolidate their market position. However, despite all the privileges
reserved for integration industries the program did not take for a number of reasons. Apart from the common problems of a serious lack of skilled manpower, capital scarcity, risk avoidance, limited natural resources, and so on, a number of more serious problems proved to be an effective deterrent to the rapid development of the large number of efficient, large scale industries hoped for by the regime. Firstly, the member-states undertook fierce competition in the granting of ever more extensive fiscal and other concessions as incentives for increased foreign investment which undermined the concessions granted to the integration industries. Secondly the member-states had difficulty in agreeing on the location of such industries. The final problem was in the acquiring of "integration industry" status, a process so complex, cumbersome, and time consuming that it became an effective deterrent to the integration industries scheme. By 1969 only three industries had been put into operation under the scheme; the Ginsula Tire Company in Guatemala (for which there is a competing tire plant in Costa Rica which is outside of the scheme), and caustic soda and pesticide plants "both" located in Nicaragua. A laminated and sheet glass plant and a paper plant were also to be established under the scheme, both in Honduras.¹

¹For further details on the structure, reasoning, and problems of the CACM's integration industries scheme see; D.H. McClelland, The Central American Common Market: Economic Growth, and Choices for the Future, op.cit., pp.86-88, 101-170, 195-196; F. Andic et al, A Theory of Economic Integration for Developing Countries, op.cit., pp.86-90; and
The Andean Integration Group has taken a somewhat different approach to the problems of coordinated regional development planning and agreed specialization.¹ To begin with some 2,000 products grouped by industrial sector, such as petrochemicals, steel, machine tools, electronic equipment, and agricultural machinery, have been reserved for a sectoral development program. This program employs a series of sectoral agreements in which the member-states agree to the allocation of exclusive production rights for specified products to individual members. Each member receives such monopoly rights for a number of products which receive free-trade treatment within the region and the protection of a common external tariff. The member governments agree not to undertake or encourage the development of such industries for a specified period of time by the end of which the preferential industries should have developed a firm competitive base. Sectoral free trade for the products of such agreements


is also to be achieved within the union by the end of the specified time period. The first such agreement, the Metal-Mechanical Sectoral Agreement, was adopted in August 1972 after two years of complex and often strained negotiations. The agreement allocated sole production rights for part of a list of 102 products, including agricultural machinery, railroad equipment, electrical generating and transmission equipment, and hydraulic systems, among the five member-states. The states were required within a specified time period to notify the Council of existing production in the sectors affected and of the feasibility of their producing their assigned products.¹ All members were obliged to initiate production within five years of August 1972. Partner-states will adopt a common external tariff for each affected product one year before the anticipated date for production commencement. Production will neither be undertaken nor encouraged in the protected industries until 1982 for the products assigned to Columbia, Chile, and Peru, and not until 1987 for the products assigned to Bolivia and Ecuador. All escape clauses were made inapplicable to the products of the sectoral agreements, both

¹The key executive body responsible for the implementation of the Cartagena Agreement is the Commission which consists of representatives of the five member-governments. It is assisted by the Council, a body of three experts responsible for developing proposals for the implementation of integration commitments. The Council is basically a technical and advisory body aimed at presenting a regional viewpoint. It is assisted in its work by a secretariat and maintains close communications with various government departments and special committees.
those of the Cartagena Agreement and those of the Montevideo Treaty. Each country is responsible for initiating production of its allocated products, there being no mechanism for the centralized development of the sectors involved beyond a loose supervision of the agreement requirements by a technical advisory committee. Currently the executive Commission of the Andean Common Market is reviewing a sectoral agreement for petrochemicals. Furthermore, the Council is drafting proposals for further agreements for the production of pesticides, fertilizers, chemical dyes, automobiles, iron and steel, pharmaceuticals, and a second metal-mechanical agreement. This system of sectoral agreements in which the Andean states distribute exclusive production rights to individual members in a reciprocal manner, along with guarantees for a captive five nation preferential market for a minimum period of time, enables the member-states to overcome the market constraint which made the development of basic industries on a national basis either very costly or economically infeasible. The bulk of the planning and implementation is left to the various government ministries, while the Council acts in an instigatory role in close cooperation with the various government departments and a network of high level advisory councils.

In addition to the sectoral agreements, further coordination in Andean development planning is assured through the activities of the Andean Development Corporation (Corfo-Andino or CAF). This Corporation is jointly owned by the
participant governments and their private sectors. It has a capital value initially set at $25 million and is authorized to raise a further $75 through the issuance of stocks, debentures, etc., once the Corporation is firmly established. The principal objectives of Corfo-Andino are twofold, first to stimulate the integration of the member-economies, and second to ensure reciprocal benefits and the avoidance of the polarization of industrial development. This is to be accomplished through the provision of loans and grants for feasibility studies, directly productive investments, and the development of essential infrastructure; through the provision of technical assistance; and, where necessary, through the establishment of corporate subsidiaries responsible for the development and operation of particular industries. Financial transactions are authorized by a majority vote of the eleven member Board of Directors, including three of the six government representatives.¹ In the disbursement of loans and grants preference is accorded to projects of either a multi-national nature, or of a national nature involving Bolivia and Ecuador.² The Corporation is also to assist those national industries adversely affected by Andean trade liberation. Much

¹Venezuela remains a member of CAF, though it is not a signatory of the Cartagena Agreement.

²So far, CAF has extended notable preference to Bolivia and Ecuador in its financial activities. See Milenky's comments in his 1973 article, p. 59, bottom.
importance is placed on CAF's use of the "mixed group concept" by which committees containing representatives of governments, industry, and planning bodies participate in the activities of the corporation. It is hoped that this mechanism will add to the desired entrepreneurial influence of CAF.

The African UDEAC also embodies provisions for the preferential treatment and sharing of large scale industries which require access to the markets of two or more member-states in order to be economically viable. The system employed allows for the waiving of third country import levies on raw materials and other necessary inputs, and for the charging of a common excise tax (the "tax unique") at the point of production which is redistributed to the member-states according to their consumption of the output of such industries. However, to date this program has proved disappointing and has failed to attract the large amounts of large scale industry hoped for.

Part and parcel of the objectives of "agreed specialization" is the notion of mutual complementarity in industrial development, particularly with respect to basic industries such as metals, fuels, chemicals, etc. In integration movements where the size of the regional or member-state markets are such that it is not economically

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1 This is the essence of the reasoning behind RCD.
possible to establish major industries in each member-state, it may be desirable to allocate the production of certain components or the carrying out of certain stages of production to the smaller members. In a number of major industries such as the auto industry the potential for horizontal and vertical specialization is considerable. The added benefit of economies of specialization makes the process all the more desirable. \(^1\) LAFTA provides for such specialization through the conclusion of "complementation agreements" between various member-states. The lagging member-states of LAFTA look upon such agreements favourably as a means of assuring mutual gains from integration. As of early 1973 nineteen such agreements had been concluded between various members. Of the first eight only two significantly involve the less-developed states, those being the agreement for certain chemical products between Columbia, Chile, Mexico, Peru, Uruguay, and Venezuela, and the agreement on certain products of the petrochemical industry between Bolivia, Columbia, Chile, and Peru.2 Hopefully the later agreements will involve increased participation by the less-developed members. Nevertheless, the results of the existing "complementation agreements" are regarded as indicating significant trade gains for the participant states, a situation favouring the conclusion of further such agreements. This type of

\(^1\) To the extent that such scale savings are not more than offset by higher marketing charges (including shipping costs).
joint industrial development should be applicable to varying degrees in a number of integration movements between LDCs.¹

To date it appears that more lip service has been paid to the desirability of the coordination or harmonization of development planning and activities, than actual effort. While it is realized that such endeavours are demanding with respect to technical requirements, feasibility study costs, the allocation of scarce negotiating talent, etc., it is likely that such efforts could be pursued considerably further than they have been with mutually beneficial results. The principal sources of opposition to this most likely lie in those complex relationships involving nationalist factors and vested interests. The further such difficulties can be overcome the more feasible increased development cooperation will likely be.

(F) The Need for the Elimination or Reduction of Indirect Trade Restraints

The elimination of direct inter-member trade restraints such as tariffs, import quotas, etc., does not necessarily mean that trade between the member-states of an integration agreement is really free or uninhibited. A tariff, quota, excise tax, turnover tax, or subsidy may have comparable effects on the market price of a traded commodity.

¹For further details on LAFTA "complementation agreements" see F. Andic et al, A Theory of Economic Integration for Developing Countries, op. cit., pp.100-102; and W. Krause and F.J. Mathis' Latin America and Economic Integration: Regional Planning for Development, op. cit., p.20 and p.91, Table 8.
Many factors which are unaffected by the removal of direct trade restraints are capable of significantly influencing the competitive position of member-state producers in the regional market and may be deliberately employed to produce a desired protective effect unless specifically forbidden by a membership protocol to the initial agreement. Differences between member-states in the nature and rates of taxation applied, in the types and levels of subsidization granted, in the tax exemptions and drawbacks available, in the various price support programs employed, and so on, influence to varying degrees the flow of international trade within an integration movement. Such factors are capable of nullifying many of the effects of tariff elimination. Consequently if integration between LDCs is to produce an indiscriminate expansion of trade it is essential that action be taken to contain and control indirect trade restraints. This will entail the harmonizing of various levies, charges, policies, etc., which affect a member-states competitive position and investment attraction abilities vis a vis other member-states. However, it should be kept in mind that harmonization requirements are stressed here in the context of integration between LDCs of comparable economic strength. Where integration is undertaken between LDCs of significantly different economic size, strength, and stage of development, extensive harmonization in areas of fiscal incentives, taxation, subsidies, etc., would be inappropriate. In such cases the preferential treatment of lagging states would be
desirable to ensure mutual gains. However, it may be preferable to base any special privileges granted for "catching up" purposes, on a common or harmonized incentive system, tax structure, etc., so as to reduce the cost and increase the effectiveness of such measures, while at the same time ensuring that such differentials do not become excessive or prompt retaliatory measures by the other member-states.

The harmonization of member-state tax systems may be undertaken to varying extents in an effort to avoid the creation of competitive advantages based on the more liberal tax treatment of particular member-states. Significant differences between member-states in corporate tax burdens may be such as to outweigh various other comparative advantages to the extent of favouring the polarization of growth in those states employing the lowest rates, particularly if they also happen to be larger, wealthier, more developed members. Lagging members may be unable to employ comparable tax rates without undergoing a fiscal crisis. Such a situation would favour the adoption of modified tax structures which are sufficiently similar in revenue composition and average burdens as not to act as a principal determinant in the location of production and direction of trade. Discriminatory fiscal charges, such as unduly high excise taxes on particular products, must be disallowed unless mutually agreed to, say as part of a program to reduce intra-regional development disparities. Where there are large differences
in the stage of development and economic strength of the member-states it may be desirable to group members as in LAFTA and to call for tax harmonization within groups, but not between them, permitting the weaker members to employ more liberal tax systems relative to those of the stronger member-states.

While the harmonization of member-state tax structures need not entail the adoption of a common system and set of rates, considerable difficulties may be incurred in negotiations on the basic changes to be made. Often the number and types of taxes levied vary greatly between member-states, as in the case of the EEC.¹ Significant differences in the composition of member-state tax receipts, in the revenue losses due to tariff elimination, in the possible means by which some of the foregone revenue may be replaced, and in other budgetary considerations, may lead to conflicts of interest over the tax changes to be made. Such conflicts may be further exacerbated by fundamental differences in the reasoning behind and importance of particular taxes and rates. Where agreement cannot be reached on a roughly general rate for particular taxes it may be necessary for member-states to levy "at the border" equalization taxes to ensure effective equality in the tax burdens of exporting producers.²

¹The number of different taxes levied by the EEC member-states in mid 1972 were Luxembourg (31), Belgium (32) Netherlands (34), Germany (54), France (70), and Italy (80).

²An example of this is the system of "at the border" equalization excise taxes currently employed in the EEC for twenty-one consumer products including sugar and non-alcoholic beverages.
However, such schemes seem contradictory to the spirit of integration and are administratively cumbersome. They also have the potential for net protective effects which may be difficult to detect, particularly when the methods of calculating tax requirements differ, as in the case of a cumulative turnover tax and a final value-added tax. The harmonization of corporate tax structures is probably the most important area for tax harmonization under integration.

It is significant to note that virtually no current integration movement, including the EEC, has been able to satisfactorily harmonize corporate taxes.\(^1\) The result is that tax burdens vary significantly between member-states in numerous integration movements, though occasionally to the advantage of the less developed members as in the Andean Common Market (ACM) and the CACM.\(^2\) While the effective


\(^2\) For indications of the differing tax burdens in the member-states of the EEC, ACM, and CACM see; Business International S.A., The EEC on the Move, op.cit., p.94, bottom; Business International Corporation, The Andean Common Market, New
net advantages to producers with lower tax burdens may be significantly less than rate differentials might imply (due to shipping costs, localization economies, etc.,) they represent a serious obstacle to the development of intra-regional export industries in the high tax states. A common system of tax rates and classifications might be adopted for the treatment of major regional industries in lieu of the national tax structure treatment. However, two problems arise with this solution. Firstly, it is questionable whether or not member-LDCs would be willing to accept such a neutral approach, particularly considering the potential income and employment effects of such industries. Secondly, there is the chance that such a system would promote the increased use of tax incentives for lesser or nationally based industry.

The harmonization of economic policies between member-LDCs is particularly important in the area of fiscal incentives offered to induce foreign investment. Inter-LDC competition for foreign investment is notably keen and has resulted in extensive incentive systems offering tax holidays, tax and tariff exemptions on imported capital and inputs, state grants, credit assistance, the granting of monopoly positions, and various other forms of cooperation and assistance (such as the provision of beneficial infrastructure).

There is the possibility that this competitive wooing of foreign direct investment may be carried to uneconomical extents as in the Central American case prior to the adoption of the common incentives system in 1969. Under economic integration between LDCs such competition may produce considerable internal friction, especially if the distribution of new industry is notably skewed as in the case of the CACM. It has already been pointed out that the granting of unimpeded access to a member-states' national market is a concession which requires the granting of reciprocal concessions if integration is to be mutually satisfactory (and hence endure). The unequal distribution of new industry need not be inequitable per se as in the case of integration between LDCs of different economic size and stage of development. However, if permitted to go too far it may well run counter to reciprocity requirements. Since foreign investment is presumably attracted to the integrated region basically by access to the regional market (i.e., a mutual concession), to locate such industry, and therefore the majority of its benefits, through competition in marginal incentives (i.e., individual concessions) makes little sense. The inordinate costs of granting competitive concessions and growing fears of the polarization of growth may lead weaker members to withdraw from the union. For these and other reasons it is desirable that economic integration between LDCs be accompanied by the adoption of a common system of incentives for foreign investment and a common code for the treatment of
foreign firms.¹ The latter would require the harmonization of member-state laws dealing with such matters as taxation and insurance; the incorporation, establishment, and operation of a foreign owned business; foreign ownership requirements and domestic participation; capital and profit remittances; reinvestment; internal versus external supply linkages; patents and industrial licensing; extraterritoriality problems and requirements; the treatment of externally held export licenses in multi-national corporations; access to foreign exchange; and so on. The most extensive foreign investment code currently employed in an integration movement between LDCs is that of the Andean Group which makes some exceptions particularly for the benefit of the less developed members (Ecuador and Bolivia).² The existence of a common system of incentives may make it less difficult to ensure reciprocity. A common incentive system, being neutral, would leave the location decision to be determined more by comparative advantage criteria. Where market forces are such as to promote an inequitable distribution of new

¹Competition for foreign investment in the CACM resulted in the granting of concessions to the point of undermining the integration industry scheme, reducing the fiscal strength of the member-governments, and encouraging the development of widespread "finishing touch" industry.

²For some details of this code see K.A. Switzer, "The Andean Group: A Reappraisal", op.cit., pp. 78-79; and E.S. Milenky, "Developmental Nationalism in Practice: The Problems and Progress of the Andean Group", op.cit., pp. 36-59.
regional industry exceptions could be made by mutual agreement in favour of the losing member until mutual gain is reestablished. Similarly, where the membership may be divided into groups differing markedly in stage of development or economic strength a multi-level system of fiscal incentives could be adopted whereby the lagging states could offer investment incentives greater by some proportion of the common base level or period of duration. ¹ Furthermore, where agreed specialization is undertaken recipient states might be permitted to extend greater concessions to their allotted industries. In March, 1969 the CACM adopted a common system of tax and duty incentives for manufacturing industry in an effort to increase the effectiveness of the incentive granted and to reduce the degree of polarization. Previously the member-states had made excessive use of fiscal incentives in an indiscriminate manner with the result that little major industry had been attracted, while a proliferation of "finishing touch" industry had been established at high incentive costs. The new common system discriminates in the granting of incentives by dividing industries into three groups A, B, and C. Incentives were deliberately set higher for industries whose

¹In the CACM Honduras was granted the right to offer proportionately greater duty and tax incentives under a 1966 protocol. For some details of this see Business International Corporation, The Central American Common Market: Profits and Problems in an Integrating Economy, op. cit., pp.32-33.
output had a higher local value-added component, or which realized substantial foreign exchange savings. Further incentives were extended to industries which produced products not previously produced in the host country, though these could also be extended under certain exceptions. Unfortunately the disruption of the CACM shortly after this system was finally adopted rules out an evaluation of its effectiveness.

Many LDCs employ various types of production subsidies to encourage the development or continuation of particular economic activities. Sometimes they are employed for the development of infant industries in place of tariffs or quotas. When LDCs enter integration agreements it becomes necessary to harmonize such subsidies so as to permit unbiased competition to determine the sources of supply for the region. Where subsidies are granted in the supply of export activity inputs such as in subcost prices of fertilizers, pesticides, and agricultural implements used in the production of export crops, it may be necessary to levy "at the border" subsidy equalization charges. While it may not be possible to harmonize all production subsidies, such as those occasionally hidden in utility rates and shipping charges, efforts must be made to equalize the effects of major subsidies on goods traded extensively within the

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1 Sometimes this problem is overcome by forbidding the use of direct subsidies as in the case of CACM (for items traded between member-states).
integrated region.

The integration of a number of LDC economies entails a growing interdependence by which the performance of one effects to varying degrees the performance of the others, and vice versa. This is beneficial when a high rate of growth in one member-state induces accelerated growth in the others through the various production and consumption linkages. However, it is also possible that low growth rates in some member-states may constrain the growth rates of those dependent upon them. At the opposite extreme, it is possible that the overheating of one member-state economy may be such that it rapidly takes up the spare capacity of the other member-states, the result of which would be the spreading of inflation to the other member economies. Such possibilities point out the need for cooperation in the containment of member-state business cycles and the coordinated pursuit of acceptable rates of inflation, satisfactorily high rates of capacity utilization, and reasonable balance of payments positions. This entails the harmonization of fiscal policy to varying degrees depending on the extent of the interdependence of their economies. The more outward looking the member-economies the less significant are the influences of member-state business cycles likely to be, yet the more significant fiscal harmonization will be in dealing with trade cycle recessions. A certain degree of harmonization of taxation and expenditure programs is likely to be necessary in most integration movements, and
will of necessity require increasing as the region develops. ¹

The containment of inflation is particularly important to most LDCs for it affects their ability to import, and hence to grow. Inflation in a member-LDC also distorts the basis on which member-state decisions to integrate were made. Members become less willing to extend trade credit, and may suffer rising input costs in horizontally and vertically specialized industries. Incentives to foreign investment will probably be lessened, particularly if the inflation is easily transmitted to the other member-states. Incentives to domestic investment in long run projects will also be discouraged, hence further discouraging real growth. These repercussions point out the need for monetary stability among the member-states. Where LDCs are accustomed to implementing development efforts through deficit financing of the printing press type, as in numerous Latin American states, economic integration may prove to be particularly difficult to pursue. Harmonization of monetary policies is desirable to varying degrees depending on the stage of development of the member-state banking and other financial systems, and on the extent to which their economies are integrated.

The economic and social policies pursued by a member of an integration movement will transmit repercussions to

¹Such harmonization is specifically called for in the Treaty for East African Co-operation, Articles 27 and 29.
other member-states through various production, consumption, and investment links. It is possible that the particular policies appropriate to the handling of one members' economic problems may differ considerably from those of another. This gives rise to a situation common to federal political systems, namely, the simultaneous need for widely divergent economic policies to handle significantly different situations in the various regions of the union. While in a federal system it is possible to adopt an overall view of the economic situation and to wield monetary and fiscal tools in a manner presumed to be beneficial to the union as a whole, it is unlikely that in an integration agreement between LDCs that the individual member-governments would be to any significant degree willing to subordinate national interests to the needs of the union. Consequently it is possible that the member-states may adopt conflicting economic policies which partially neutralize one another to varying degrees.¹ The implication of such a situation

¹Consider the situation of two neighboring LDCs in an integration movement. One (A) is suffering from unacceptably high levels of inflation and has implemented various contractionary policies in an effort to contain price increases. The other LDC (B) suffers from an economic slowdown and has implemented expansionary policies designed to stimulate an increase in economic activity. The contractionary policies of A will discourage imports with a resultant contractionary effect on B's exports to A. Thus, A's contractionary policies will partially offset B's expansionary policies. The expansionary policies of B will promote an increase in economic activity in B which will stimulate increased imports of raw materials, intermediate goods, capital, and consumer goods which will be obtained in part from A. Thus, B's expansionary policies will partially nullify A's contractionary policies. This phenomena occurs in all market
is that integration may make the handling of economic and financial policies more difficult for the member-states due to the increased uncertainty of their effect. The possibility of policies being partially neutralizing or reinforcing may make the net impact of such either deficient or excessive. While the extent of this policy carry-over may be quite limited in the initial years of integration between LMDCs, it will likely increase with the continued growth and increasing interdependence of the union. With this in mind it would probably be beneficial to initiate a system of periodic mutual consultations on the major economic problems encountered by the member-states and on their planned policy correctives. Such mutual exchanges of information could prove quite valuable in policy formulation, in particular, for the undertaking of joint or coordinated action. Such a system may be particularly desirable to the weaker, less developed members who would more likely be net recipients of policy transmission effects rather than the economies, but is particularly important in integration due to the close economic ties which develop between member-states.

In an integration movement the economies of LMDCs will develop an ever-increasing regional orientation in their production activities. They will increasingly depend on one another for supplies of particular producer and consumer goods, and for sales of the products of their regionally based industries. As this occurs the national economic policies of individual states will exert an influence on economic activity in other member-states. Consequently, the effectiveness of any one state's national economic policies will depend on the nature and extent of policy carry-over from the other member-states.
initiators. The question of whether or to what extent national policies should be modified for or subordinated to regional policy requirements is very difficult to answer. Certainly any sacrifice or subordination of national interests must be satisfactorily compensated by the beneficiaries.

The rate of exchange of member-state currencies and their stability are of fundamental importance to the overall level and distribution of integration benefits. Undervalued exchange rates may be employed as a hidden form of protection and export subsidization to the detriment of producers in other member-states. Therefore it is important that the exchange rates employed for inter-member trade be realistic and stable. Changes in a member-state's exchange rate alter the price-cost relationships of member-state production, and subsequently the benefit-cost relationship on which other members based their decision to integrate.

An exchange rate change produces a new set of determinants on which inter-member production and trade are based with the result that the distribution of production and trade between member-states will change. Consequently under economic integration the decision to revalue is no longer strictly the concern of the undertaking government but rather is a matter of concern to all members. Consultation between member-states on any member-state currency revaluations is desirable and may facilitate the adoption of less extreme joint corrective measures. Unilateral currency revaluations
may lead to serious internal strains between integration partners. It is interesting to note that the CACM planned the formation of a monetary union as a means of overcoming the currency exchange problem. Exchange rate instability could have the added effect of discouraging foreign investment.

Finally, it is desirable to harmonize member-state transport policies, particularly with respect to the nature and level of shipping rates. The use of discriminatory or preferential rates to protect domestic production and subsidize exports must be avoided, particularly in the case of landlocked member-states where the use of higher shipping rates on reexports could place the producers of landlocked states at a competitive disadvantage.

It is highly unlikely that all effective indirect trade restraints can be removed in trade between member-LDCs of an integration movement. However, the removal of major tax rate differentials, a sufficient harmonization of subsidy and price support programs, the adoption of stable, realistic exchange rates, and of nondiscriminatory shipping rates will make the removal of trade restraints on inter-member trade more meaningful. Where major conflicts of

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1Such strains developed within LAFTA in 1963 when Uruguay devalued the peso from 9 to 0.1 cents (31%) and imposed a 20% surcharge without giving prior notice to its fellow LAFTA members.

2It also planned for the centralization of monetary policy for the region.
interest occur and harmonization is unachievable national corrective measures may be required. The common treatment of foreign investment is desirable in that it is effectually a way of minimizing differences in the subsidies granted to foreign firms which plan to produce for the market of more than one member-state. Finally, a certain degree of harmonization of general social and economic policy is desirable since it effects the climate in which the harmonized variables operate.

(G) The Need for a Payments Mechanism

In section II of the paper it was pointed out that one of the benefits to be derived from economic integration between LDCs was a reduction of the hard foreign exchange constraint common to most LDCs. The substitution of internal production and trade for third country imports reduces the difficulty involved in acquiring from outside the integrated region a greater quantity of those goods and services deemed as being indispensable to the further growth and development of the region. Intra-regional trade could be conducted in local currencies as opposed to the usual requirement of conducting international trade in hard or freely convertible currencies. The possibility of various member-states developing marked surpluses or deficits in inter-member trade during the initial transition period is quite likely due to the many difficulties involved in accurately predicting the initial impact of the removal (partial) of inter-member trade restraints.
Furthermore, it is highly unlikely that intra-regional trade will always multilaterally balance over a specific time period, even after the initial transition to free trade has been made, so that some mechanism is required for clearing trade deficits. The requirement that deficits be settled at specified intervals wholly in gold or convertible currencies could induce a severe shock to the international economic activities of any member-state having a foreign exchange shortage. Consequently some mechanism is required to clear trade imbalances with a minimal hard foreign exchange impact on the deficit member, and at the same time not involving the rendering idle of significant amounts of hard foreign exchange.

Integration between LDCs whose currencies are readily convertible, as in the East African case, poses less of an exchange problem. However, trade deficits between members will still be a cause for concern due to the reciprocity implications which they entail. They may also increase the task of defending the member-currencies in the international market.¹

A payments mechanism frequently mentioned in writings on economic integration is the payments union. This mechanism requires the provision of a centrally administered fund of freely convertible currencies and/or gold. Usually

¹Though this is unlikely due to the limited proportion of LDC trade conducted with fellow LDCs.
member-states would be allocated credit quotas equal to some proportion of their inter-member trade. Each member-country regards its inter-member trade relations as exports to and imports from the payments union as a bloc, not from individual members. The payments mechanism would be administered by a central agency or bank responsible for the surveillance and recording of individual member-states' inter-member trade, for the payment of surplus member-states in gold or convertible currencies from the union fund, and for the collection of payments to the fund from deficit member-states, also in gold and, or convertible currencies. Each member-state receives credit from the payments union on net inter-member trade deficits up to the level of their quota. However, this credit is only partial for the most part. Progressively larger deficits in relation to the debtors quota require proportionately greater convertible currency and, or gold payments to the union. As a rule deficits equal to or less than some specified proportion of the debtors quota, say twenty-five percent, would receive full automatic credit coverage from the union. Deficits larger than the automatic credit level would receive full credit coverage on the first twenty-five percent equivalent, but progressively smaller credit allowances on those parts of the deficit falling within the range of say successive quartiles of the debtors quota. For instance, seventy-five percent credit coverage on that part of the deficit equal to some part of the second quartile, fifty percent credit
on that part of the deficit falling within the range of the third quartile, and only twenty-five percent credit coverage on that part of the deficit falling within the range of the last quota quartile. Those parts of the debtors' deficit in excess of its quota would be fully compensable to the union in gold or convertible hard currencies. The result of this system is that as a member's "cumulative trade deficit" grows in relation to its quota allowance the proportion of its deficit which must be directly paid to the union in gold or hard currencies increases. This growing loss of scarce reserves is a deterrent to any passive treatment of the inter-member trade deficit. This is all the more the case where the granting of credit on successive deficit quartiles is made conditional on progressively more stringent requirements by the union for the debtors' implementation of measures to correct the cumulative deficit, such as appropriate monetary and fiscal measures aimed at promoting the expansion of inter-member exports and restraining corresponding imports. All member-states would extend credit to the payments union in the case of their having a net surplus on inter-member trade. Surpluses say within the range of the surplus members' first quota quartile would be fully covered by the extension of credit to the union. Surpluses in excess of this quartile would be covered by the extension of credit, and in part by payments from the union to the surplus state in convertible currencies and gold. The proportion of trade surpluses in excess of the
first full credit volume would be only partially covered by the union at a fixed proportion, say 50%, so as to create a built-in stimulant for surplus members to balance their multilateral member-trade over time. In transition periods this might be achieved by the surplus member accelerating the removal of trade restraints on inter-member trade and encouraging the development of more production linkages with deficit member-states. The union fund of gold and, or convertible currencies required to cover the differences in such receipts from deficit members and payments to surplus members would preferably be subscribed by sponsoring DCs and international agencies such as the IMF or World Bank. Individual member-state central banks would be responsible for reporting all inter-member trade transactions undertaken within specified time periods to the payments union which would maintain a record of the cumulative net inter-member trade positions of the individual member-states. These records would determine the credit to be extended to the various deficit members, and the gold and currency payments to be made to the union at the end of each time period. This type of payments mechanism should reduce the initial impact of a trade deficit in inter-member trade through the extension of credit to deficit members, while at the same time encouraging them, by means of the progressive payments and credit requirements, to correct their inter-member trade deficits. At the same time the mechanism would encourage surplus members to achieve a greater degree of
balance in their inter-member trade relations through the effects of only partial payment of net surpluses by the union. This characteristic would also discourage somewhat the deliberate cultivation of inter-member trade surpluses. The basic assumption underlying the payments union mechanism is that while individual member-state’s trade positions will fluctuate over time between surplus and deficits, in the longer run such imbalances will tend to cancel out with the net cumulative trade position fluctuating between slight surplus and deficit positions. As such the mechanism is aimed at providing a breathing space in which members may adopt effective corrective measures without immediate recourse to such drastic measures as large cyclical drawings on exchange reserves, the implementation of foreign exchange controls, devaluation, the invocation of escape clauses, and so on. As such it may significantly encourage the expansion of inter-member trade while minimizing the hard foreign exchange reserves required to cover such trade.¹

¹The most notably successful payments union employed to date was the European Payments Union (EPU) which provided a multilateral payments system for the seventeen member countries of the Organization for European Economic Cooperation (OEEC) from 1950 to 1958. A central fund of $350 million was subscribed by the United States with the Bank for International Settlements (Basle, Switzerland) acting as the union agent. Quotas equivalent to 15% of member’s inter-member trade were allocated to each member-state with credit arrangements being aligned with these. EPU activities between 1953 and 1959 made it possible for over three-fifths of the regions almost five billion dollars of trade to be bilaterally balanced, and a further one-fifth to be compensated multilaterally if trade balances could be transferred within the region. This system was instrumental in promoting the expansion of intra-European trade from its postwar depths,
The credit conditions granted could be adjusted in individual cases to allow for differences in the initial trade positions of various member-states, and for differences in the time pattern of various members' import and export activities. The use of a payments union or similar mechanism has frequently been suggested in the context of LAFTA requirements for a payments system. However, such proposals have been objected to by the IMF and the United States; though not by ECLA, on various arguments that such a system would encourage monetary laxity through its credit facilities, promote inflation in both debtor and creditor countries alike, and encourage trade-diversion at the expense of third country trade. The validity of these arguments is much debated, particularly considering the facts that similar credit arrangements are provided by the IMF, that only a small proportion (11-12%) of LAFTA trade is conducted between member-states, and that import-substitution trade is aimed at changing the composition of third country trade, not necessarily reducing its volume. In situations of persistent trade deficits by particular member-states more extreme measures may have to be taken such as devaluation or the adoption of a lower inter-member exchange rate. A payments

and in facilitating the restoration of convertability to European currencies. At its inception the currencies of most EPU members were inconvertible and trade was distorted by a severe shortage of convertible currencies and by bilateral payments systems. Similar problems are currently being incurred by numerous LDCs.
union in itself will not automatically resolve fundamental trade problems, but merely provide a time period during which to plan appropriate remedial measures. The length of this breather period will depend principally on the rate at which union credit is exhausted and foreign exchange reserves are drawn down.

An alternative multilateral payments system somewhat similar to a payments union is the multilateral clearing house. The CACM employed this mechanism with beneficial results in its efforts to transform intra-CACM trade from conduction principally in United States dollars to conduction in local currencies. Under the Central American system each member-state's central bank extended a trade credit to the other member-states (as a group) in local currency equivalent to $500,000. Each central bank had an account with the Central American Clearing House (CACH) which operated a local clearing house in each member-state. A state's exports and imports were recorded as credits and debits respectively in the state's CACH account. Payments for imports would be made to the account, with receipts for exports being drawn from the account. Net trade surpluses (or net external deficits) equivalent to $500,000 or less would be covered automatically by credit extended by the surplus central bank (i.e., this part of a "regional net trade deficit" with the surplus state would not require direct payment in convertible currencies by the net deficit member-states). Thus, in the surplus state the shortfall
between the volume of local currency deposited for imports and that drawn for exports would be covered by the central bank. Net trade imbalances exceeding the $500,000 credit allowance were payable by net deficit members on demand by the net surplus state central banks, or could be settled through bilateral credit arrangements between surplus and deficit members at a mutually agreeable rate of interest. Such direct payments or credit arrangements were reported to the CACH which adjusted the cumulative net trade positions of the member-states concerned accordingly. The CACH calculated the debit and credit positions of the individual member-states on a weekly basis so as to determine the levels of excess credit balances payable immediately in United States dollars. These excess balances were most frequently settled on a weekly basis between debit and credit banks. Excess balances covered by automatic credit were settled in convertible currencies at six months intervals within one week of either June 15 or December 15. These credit balances earned interest paid by the debtor banks at a rate determined by the Clearing House. Total clearings through the CACH rose from less than ten percent of the total inter-member financial transactions in 1961 to almost eighty-seven percent in 1966. Furthermore, final settlements

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in United States dollars fell from about thirty percent of total clearing operations in 1962 to about twelve percent in 1960. These total dollar settlements could have been sufficiently smaller had the limit on automatic credit been larger. The system proved sufficiently flexible to operate under conditions of exchange controls by various member-states. Quotas were set for the volume of exchange control currency (principally from border trade and tourism) to be cleared by the central banks, the level being dependent on the currency proportion of the total amount of financial transactions conducted with member-states by the exchange control state. The clearance of other financial documents required the authorization of the respective exchange control office. This is notable since numerous arguments against the use of payments unions and multilateral clearing houses cite the occurrence of multiple exchange rates and exchange controls as factors making the operation of such mechanisms so complex as not to merit their undertaking. Both systems can work under multiple exchange rates, but require immediate notification, and preferably prior consultation, of exchange rate changes with the various member-states and payments bodies.

In some economic integration movements between LDCs it may not be possible, for various reasons, to develop a comprehensive multilateral payments mechanism. Under such circumstances the minimization of convertible currency requirements for inter-member trade may favour the conclusion

ibid.
of bilateral clearing or payments agreements between the member-states. This approach has been adopted by a number of Arab Common Market states while the remaining members settle their inter-member trade deficits in hard currency payments or gold. While such arrangements may favour the expansion of inter-member trade between signatory states, they may do so at the expense of reduced trade levels to other member-states not covered by such agreements. Comparative cost criteria may become secondary to exchange availability criteria in inter-member trade with the resultant reduction in economic efficiency and welfare. Within LAFTA partial clearing arrangements have been established through the negotiation of a number of such bilateral agreements. The Central Bank of Peru acts as the principal clearing agent for the member-states covered by these agreements.  

In some integration agreements the payments problem may be overcome by the adoption of a common currency to be employed in all inter-member financial transactions. COMECON currently plans the realistic revaluation of all member-state exchange rates and the adoption of a "new ruble" to be freely convertible within the trade bloc. A common currency is


currently employed in the West African Monetary Union, the CFA franc, and significantly reduces the problem of conducting inter-member trade. Similarly the CACM planned the formation of a monetary union and the adoption of a common currency in an effort to further reduce exchange conversion problems.

The question of how the trade of member-states should be balanced depends on a number of factors. To begin with the extent to which inter-member trade can be multilaterally balanced depends on the payments mechanism available. Certainly the multilateral balancing of trade is preferable for it is less restrictive in nature and favours trade based on comparative cost advantages. Secondly, the need for inter-member balance also depends on the foreign exchange positions of those member-states having net deficits in their inter-member trade. Where the deficit members have a healthy foreign exchange position, say due to running a net surplus in their hard currency third country trade, they may be opposed to a net deficit in their inter-member trade. They may regard a deficit position with a high level of trade as preferable to balance at a lower level. However, it is more than likely that the cultivation of inter-member trade surpluses will lead to friction between the deficit and surplus states. The intra-regional balancing of trade is therefore

The members of the West African Monetary Union include Ivory Coast, Dahomey, Mali, Upper Volta, Mauritania, Niger, and Senegal.
probably preferable in most cases. This would require the separate balancing of inter-member and third country trade.

The question of how internal and external trade are to be balanced is another question. The elimination of internal trade restraints, the adoption of common third country trade restraints, and the mutually interdependent nature of individual member-states economies makes the treatment of individual member-state trade imbalances a matter of joint concern. In a loosely integrated union this may require little more than prior consultation on the planned corrective measures with some minor adjustments to ease possible carry-over effects to the other member-states. However, where the member-LDCs have achieved a high degree of integration in their economies the optimal combination of corrective policy measures may entail the coordinated implementation of both internally and externally oriented policies by each member-LDC on a group basis. This might entail the joint devaluation (possibly to different degrees) of individual member-state's third country exchange rates, the implementation of coordinated corrective monetary and fiscal measures, the coordinated inducement to produce for export (both intra-regionally and extra-regionally) of particular industries in different states,
and so on. All such adjustment measures would require to varying degrees joint consideration of their efficiency and reciprocity implications.

For an interesting discussion of various possible approaches in correcting internal and external trade imbalances see J.R. Meade, The Theory of Customs Unions, op.cit., chap.1 and Appendix 1.
(V) Further Matters of Economic Integration

Between LDCs

(A) Factor Mobility

Economic integration between states need not lead to factor-price equalization, but may promote tendencies in that direction. In a free trade area or customs union free commodity trade will encourage reductions in inter-member wage and capital cost differentials by reducing the competitiveness of high cost producers. The need to compete (being unable to secure national protection) should lead high cost producers to increase their productivity and, or to lower their factor payments bringing production costs more in line with those in lower cost member-states. In the higher forms of integration the free movement of capital and labour should make this equalization process more direct. Capital would move between member-states in response to greater investment opportunities and higher interest rates. Similarly, large inter-member wage differentials would encourage migration to high wage areas, though non-economic factors could limit the extent of such migration. Such mobility should promote the achievement of a relatively uniform high rate of productivity throughout the region.

1Language problems, socio-political differences, religious constraints, caste relationships, the segmentation of national labour markets according to race, tribe, religion, etc., and other non-economic factors common to many LDCs may significantly limit such migration. Poor inter-member communications on labour market conditions, and high migration costs could further limit response to inter-member wage differentials.
However, it is questionable as to what extent LDCs undertaking integration would permit such factor mobility.

It may be argued that capital mobility will produce increased competition for limited funds thereby increasing the number of investment opportunities for such funds, and in so doing raising the overall level of productivity of a fixed level of investments. Free capital transferability within the region may be particularly important in the development and expansion of regionally integrated industries, particularly if they are foreign private undertakings. Such mobility may also be important in the financing of particular seasonal industries in various parts of the region. These various mobility benefits encourage the removal of controls, exchange charges, and taxes often levied by LDCs on capital transfers. However, such moves could also lead to a number of problems. Free unlimited capital mobility may make the tasks of maintaining exchange rate stability and of influencing the interest rate more difficult. Furthermore, where integration is between LDCs of significantly different economic strength and stage of development there is the possibility that the freeing of capital movements within the union may facilitate a pronounced movement of capital from the less developed to the more developed members which offer wider investment opportunities.

1However, it is notable that in the Andean Common Market movement Chile insisted that CORFO-ANDINO require the approval of a member-state government before transferring assets from that member-state to another.
at lower risk levels. Fears of such backwash effects may favour the retention of various controls on capital movements. The only two LDC integration movements which are currently known to be allowing free capital mobility are the EAC and UDEAC.

The free movement of labour is perhaps an even more sensitive question. In many underdeveloped regions, particularly in Africa, the unimpeded transnational movement of labour is traditional. The pursuit of nomadic herding and shifting cultivation, and the development of cyclical labour migrations between LDCs in harvest periods, often results in intra-regional labour mobility being taken for granted. The frequent absence or sparcity of border enforcement until recent times further encouraged such mobility. However, it appears that this freedom is on the wain. Many LDCs have become particularly conscious of their sovereignty in the postwar independence period and increasingly stress their border rights. The serious unemployment problems faced by many LDCs have led them increasingly to reserve domestic employment creation for the benefit of nationals. While labour mobility may be acceptable between labour-shortage and labour surplus LDCs, or between LDCs facing no serious job shortages, such cases appear to be the exception more than the rule. The willingness of LDCs undertaking economic integration to permit free labour mobility within the union varies considerably. At one extreme lies the case of the short-lived Federation of the West Indies (1958-61), an
integration agreement between eleven formerly British island colonies varying greatly in economic size and stage of development. Here the question of free labour mobility was a major point of conflict and ultimately of dissolution between the member-LDCs. The smaller, poorer islands (Antigua, Barbados, Grenada, and others) insisted on unimpeded labour mobility within the region in accordance with the integration agreement, while the wealthier, more developed members (Jamaica and Trinidad) refused to permit large scale immigration from the poorer islands.\(^1\) The UDEAC lies in a somewhat middle of the road position, not expressly forbidding free labour mobility within the region, but neither making specific provision for it.\(^2\) In the post-independence period the region's traditional north to south labour migration in response to population pressures and large wage differentials has been obstructed by various policies of the member-states. Finally, towards the liberal

\(^1\)See M.S. Wionczek, *Economic Cooperation in Latin America, Africa, and Asia*, op.cit., pp.126-27. The CACM also failed to come to any agreement on free labour mobility between the participant states despite the repeated efforts of El Salvador to press for such a regional agreement. In the Central American case labour mobility across national boundaries was considered a political and security matter to be kept apart from economic integration matters. See P.C. Schmitter, "Central American Integration: Spill-Over, Spill-Around or Encapsulation?", *Journal of Common Market Studies*, VOL. IX, NO.1, 1970, pp.1-48, p.45.

extreme is the East African Common Market in which labour mobility between the member states has traditionally been quite free from restrictions.¹

It is possible that the freeing of capital and labour movements between the member-LDCs of an integration agreement may create more problems than it solves. Whether or not such mobility is desirable on the whole will depend on the particular circumstances involved.

¹However, the longevity of this free labour mobility between the three East African states is subject to doubts due to the current political friction between them, particularly between Uganda and Tanzania. Uganda has already threatened the suspension of free labour mobility into Uganda from Tanzania and Kenya.

The Arab Common Market has as one of its avowed objectives the free movement and residence of labour throughout the union. However, it has not yet achieved this goal, nor does it appear likely to do so in the near future due to the general inactivity of the group. See the article by M. Diab, "The Arab Common Market", op.cit., p.241.
(B) Spatial Proximity, Communications, and Transportation

The three topics of this subsection of the paper involve a considerable degree of interrelatedness and overlap. All are of fundamental importance to the operation of economic integration between LDCs.

The question of the spatial proximity of the member-states of an integration movement vis a vis one another receives varying treatments in different writings on integration. In some cases contiguity is seen as being likely to involve a greater degree of similarity in social and economic relationships, a greater level of intercourse, or greater familiarity with and sympathy for the problems of neighbouring countries. Whether or not such is the case as a rule is questionable. Some economists discuss the proximity question in a geographic context. Kindleberger's treatment of a hypothetical customs union between Iceland and New Zealand most readily comes to mind as an illustration of the importance of geographic separation.¹ The spatial problem here is obvious. Yet if broadly interpreted this becomes illusory. Argentina and Chile are contiguous members of LAFTA. Presumably they would have a locational advantage in trade with one another over more geographically distant countries. Yet it is cheaper for Chile to import wheat from distant Australia than from neighbouring Argentina.

The principal reason for this is the lower shipping cost of obtaining wheat from Australia relative to Argentina. While Chile and Argentina are contiguous, overland trade is prohibitively expensive due to the poor state of development of overland road and rail links between the two countries. Shipping services between the two countries are so irregular and costly that it is cheaper for Chile to import wheat from Australia. This illustration brings up an important point. It is not so much the geographic distance between member-states which determines the level of trade which can been economically undertaken between them, but rather the economic distance between them. This economic distance factor involves a wide variety of interrelated variables including available shipping facilities, the quantity and quality of such services, shipping rates, handling facilities, customs processing and clearance expenses, trade regulations, and so on, all of which effect the ultimate expense to the importer or exporter of conducting trade. In LAFTA the large geographic distances between the member-LDCs located on the west coast of South America and those located on the east, when combined with the poor state and high cost of transportation services linking the two groups, produce economic distances between the two groups of considerably greater magnitude than the geographic distances (in relation to trade with various third countries). The larger the economic distances separating the national markets of the member-LDCs, ceteris paribus, the less will
be the extent to which these markets will be effectively integrated. Major natural barriers (such as mountain ranges, tropical jungles, and deserts) in combination with poor transportation links may make economic integration between some LDCs an uneconomic undertaking. In LAFTA while spatial and transportation problems work against the extensive integration of member-state markets, the relative concentration of South American populations within a 200 mile wide coastal belt, combined with the availability of cheap Pacific coast shipping and acceptable transportation links in the Rio de la Plata basin, favours the formation of close economic ties on a subregional basis (i.e., among the Andean Group states and among the states of the La Plata Basin). Some natural barriers, such as navigable bodies of water, may be conducive to integration by providing low cost marine shipping opportunities. The significance of spatial factors and natural barriers between LDCs as conditions limiting the extent to which national markets may be integrated depends ultimately on the extent and state of refinement of communications and transportation links between the member-LDCs.

The importance of good communication links between LDCs undertaking economic integration generally receives little if any attention in writings on integration. Yet

1 That is, the high costs of conducting trade may be prohibitive to significant trade increases, despite the removal of trade restraints.
the existence and adequacy of such links is vital to the
expansion of commercial relations envisaged under integration.
There is a fundamental relationship between the extent of
inter-country communications and inter-country commercial
relations. The potential degree of market integration be-
tween LDCs is dependent on the quantity and quality of the
communications facilities which link them. In many LDCs
communications links with neighbouring LDCs are at a low
level of development and act as an impediment to trade.
In the CACM and LAFTA poor inter-member communications
links (post, telephone, telegraph, and telex) were seen as
a major impediment to the expansion of inter-member commer-
cial relations. Delays in intra-Latin American postal
services are common and extended, while phone calls between
states are frequently routed via New York, and in some cases
are impossible to connect. Such conditions favour the
conducting of business with companies in the United States
and Western Europe, with whom contact is more readily
attainable, rather than with suppliers in fellow LAFTA
states. Such conditions are detrimental to integration and
have stimulated the Inter-American Development Bank (IDB)
to conduct a series of feasibility studies on the development
of an Inter-Latin American Telecommunications Network (ITN)
to link all major Latin American centres directly via a
system of submarine cables, overland wires, terrestrial
relay stations, and "earth stations" with direct links via
a stationary communications satellite.¹ Similar studies on communications requirements between the member-states of the CACM were conducted in the 1960's under the auspices of the World Bank. In both unions the member-states agreed on the need for a regional communications network to further promote integration, but encountered numerous problems with respect to such matters as joint financing, equipment purchasing, extent of national control, and the structure of network administration and control. While most LDC integration movements will not require systems as elaborate as those envisaged by LAFTA, it is likely that most will require some coordinated development of communications networks. Considerable savings may be reaped in both initial investment and operating costs when regional networks are developed and operated by a semi-autonomous regional authority such as the East African Posts and Telecommunications Corporation in the EAC. Such semi-autonomous bodies are likely to be more business-minded than individual government departments, and less prone to over-staffing, the retention of inadequately low political rates, and the stifling of modernization and expansionary investments.

Most integration schemes between LDCs provide for the development and refinement of inter-member transportation

¹For further details see A.J. Lipinski, "Integration of Latin American Communications"; and E.M. Rizzoni, "Development and Integration of Latin American Telecommunications", both in R. Hilton's (ed.) The Movement Toward Latin American Unity, New York, Frederick A. Praeger, 1969, chaps. 26 and 27 respectively.
links, either through the coordinated development of road and rail links, or by the expansion of deep water port facilities and the refinement of the distributory road and rail networks serving them. It was pointed out in chapter II that one of the principal sources of gain from economic integration was an expansion of the market which would facilitate the reaping of economies of large scale production and of horizontal and vertical specialization. However, the concentration of large scale production and increased specialization envisioned depends for its economic feasibility on the economic distances separating the various national segments of the regional market. High transportation costs offset to varying degrees the gains to be had from large scale production. Whether or not the production activities of any particular industry will be concentrated in one enormous central plant or in two, three, or more smaller, regionally dispersed plants will depend on the nature of the trade-off between the numerous economies of large scale production and the economic distances between the plant(s) and its (their) sources of supply and markets. The more extensive and efficient are the transportation networks linking the various components of the regional market the less is geographic dispersion of the market a deterrent to large scale concentrated production. Poor transportation links between the member-states will have the same effect as poor geographic proximity between members limiting the gains to be had from integration by limiting the extent to
which the national markets can be regionally integrated.

The extent and rapidity with which economic integration will promote the expansion of intra-regional trade will vary considerably between different groups of LDCs. In the case of LAFTA over the six year period 1962-68 inter-member trade increased at an accelerated average annual rate of 21%, raising the proportion of inter-member to total LAFTA trade from 7.0% to 11.1%, a relative increase of 59%.¹ In the case of the CACM the expansion of inter-member trade was even more pronounced. Over the seven year period 1961-68 intra-CACM trade increased by 416%, raising the proportion of intra-CACM to total CACM trade from 8.0% to 33.0%, a relative increase of 313%.² In both of these cases existing transportation links were regarded as an impediment to trade expansion. Poor transportation facilities may act as a bottleneck on inter-member trade.

The development of good inter-member transportation links is also important as a means of reducing inter-member locational advantages which might otherwise promote the polarization of industrial development in centrally located member-countries.

Currently few LDCs have good transportation links

¹Statistics adopted and calculated from W. Krause and F.J. Mathis, Latin America and Economic Integration: Regional Planning for Development, op.cit., p.85, Table 3.

with their neighbouring LDCs. Principal road and rail networks are frequently export oriented. In South America and Africa this coastal-metropolitan orientation of transportation networks is particularly pronounced. Road and rail networks converge on particular coastal ports, often with little or no good links between ports, especially between ports in different LDCs. While this is an understandable reflection of the export-orientation of most LDC economies it may serve as an effective deterrent to integration between some LDCs. Where major investments in transportation would be required to make market integration effective the scarcity of capital, alternative investment opportunities, and political misgivings may rule against integration. Integration proposals may have to be forestalled until transportation links have been developed. A recent O.E.C.D. publication noted that the possible expansion of the EAC to include Burundi, Ethiopia, Somalia, and Zambia « would probably have to await the construction of adequate road and rail links.» It is frequently suggested that recognition of the benefits to be had from integration and the need for improved transportation links between neighbouring and other member-states might lead to an action-reaction relationship between the expansion of inter-member trade.

and the development of transportation links between member-
states in the form of a virtuous circle, the expansion of
one promoting the expansion of the other and vice versa.

The development of inter-LDC transportation links
may have the added advantage of opening up new tracts of
land bringing into the modern market mechanism people and
resources previously isolated from the money sector of the
LDC economies.

Considerable benefits may be reaped from the co-
ordinated or joint development of inter-member transporta-
tion links. The capital requirements of such projects may
lend themselves to joint development. Furthermore, where
considerable external financial assistance is required the
joint nature of such projects will likely prove favourable
to the acquisition of foreign capital. Regional development
banks and a growing number of international agencies and
DCs favour joint development projects in their aid and loan
disbursements. A close degree of cooperation is desirable
in the area of road, rail, and port developments with res-
pect to the types of equipment to be adopted. The standard-
ization of such items as railway gauges, the types and sizes
of rail cars to be employed, the types of loading and un-
loading systems to be adopted by railroads and port facilities,
the various containerization systems to be employed in road,

1 This may be particularly important to LAFTA and the Andean
Group with respect to the development of trans-Andean
road and rail links.
LEAF 206 OMITTED IN PAGE NUMERING.
matters of revenue and cost sharing, differences in transport priorities, various nationally subsidized low rate schemes, employment practices, and political prestige requirements.

The various transport-related activities undertaken in integration schemes between LDCs to date indicate the importance widely attached to good inter-member transportation links.

In the area of road haulage development the CACM provides a good example. Prior to the 1969 hostilities some 90% of all intra-CACM trade moved by truck. Poor inter-member road links due to a lack of paved roads connecting many centres; reliance on gravel and earthen roads which became impassable during the rainy season; narrow and twisty roadways which frequently employed single lane bridges; inadequate road signs and directions; and various other road network deficiencies served to raise the costs of conducting inter-member trade. In response to these problems the five member-states produced a ten year plan for transportation development which envisaged a total expenditure of nearly a billion dollars. At the centre of this plan was a system of bitumenized Central American highways to be constructed between the major points in the five member-states. This regional network was to be supplemented by national road

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networks which were to be coordinated with one another. 
Between 1961 and 1967 the member-states individually and 
together, spent over $400 million on transportation develop-
ment. For the period 1965-69 projected investments in 
road construction according to national plans required 
expenditures equal to 30% of overall public investment.

Problems with road haulage between LDCs, however, 
frequently extend well beyond the obvious problems of in-
adequate surface links. National road haulage monopolies 
are not uncommon, nor are strict or prohibitive inter-
national transit regulations. The latter problem has been 
a serious constraint on inter-member road haulage in the 
EAC. Where various regulations on inter-state trucking 
require extensive inspections, transhipment, and considerable 
cargo handling the time requirements and expense of inter-
country trucking rise rapidly to the discouragement of trade. 
Where integration members employ such systems a protocol on 
inter-member trucking permitting intra-regional shipping 
with a minimization of regulation requirements would be 
desirable. Where member-LDCs are concerned over shipping 
losses, in terms of national haulage, a road haulage con-
ference or regionally integrated road service might provide

1 ibid.

2 J.C. Orantes, Regional Integration in Central America, 
op.cit., p.51, bottom.

3 See I. Doimi di Delupis nee Delter, The East African 
Community and Common Market, op.cit., pp.120-1, for 
some details of the road transport problem.
a satisfactory solution.

In some LDC integration schemes considerable emphasis has been placed on the development of railroad links between member-states. For instance, prior to Chad's defection in 1968, the member-countries of UDEAC had proposed the construction of a railway some 2,500 km. in length to link the markets of Chad and the Central African Republic with those of the Cameroons. The estimated cost of the proposed rail link was approximately $300 million.¹

The development of inter-member rail links has been particularly important to regional trade in the EAC. Since the independence drive in the early 1960's emphasis has been placed on further linking the Kenya-Uganda line with the Tanzanian central line. This involved the forging of new direct rail links in the eastern coastal region, and the development of a rail ferry on Lake Nyanza connecting the two main lines in the west. The EAC has retained a common rail system developed in the colonial period by making it a semi-autonomous corporation subject ultimately to the authority of a regional Communications Council (on which each state is equally represented) and a council consisting of the three heads of state.² In this way the

¹To date no progress has been made in developing Chad-Cameroon rail links.

²It is interesting to note that the member-states each appoint an East African Minister to the Communications Council. These ministers are to ensure the maintenance of a regional outlook in the Council. The other members of the Council are the three national Ministers of Communications.
rail system avoids the costly duplication involved in separate administrations and equipment servicing; assures uniformity in regional services and tapering rates regardless of border crossings; benefits from standardized motive power, rolling stock, loading facilities, etc; and purchases equipment on a regional traffic basis with various associated savings, while at the same time assuring that each member-state's interests will be observed.

Ocean shipping remains the principal transport media by which African and Latin American inter-LDC trade is conducted. Over 90% of the Intra-LAFTA trade is conducted by sea, as is the majority of trade between the now geographically separated northern and southern member-states of the CACM, and between the island members of CARIFTA. In these regional groupings the development of marine transportation is fundamental to their future integration. Ocean shipping services in most LDCs suffer from one or more of a large number of deficiencies and problems which serve to raise costs significantly. These problems include the inadequate development of deepwater births to handle large ocean going vessels; inadequate loading and unloading facilities; the poor state of maintenance of port equipment; inadequate port staffing; inadequate storage facilities in the port area; inadequate facilities for direct transhipment; poor distributive transportation networks; and complex paperwork systems for cargo registration, inspection, and customs clearance. These deficiencies result in high turn around
time and problems of breakage, spoilage, etc., which when combined with the cartel-type pricing practices of the DC-dominated international shipping conferences, result in excessively high shipping costs. This problem is compounded by the irregularity of sailings between neighbouring LDCs as compared to the sailing schedules to the DCs, a situation which favours trade with the DCs rather than with other LDCs.\textsuperscript{1} Often shipping schedules for Latin American ports and the respective rates are such that products can be shipped faster and less expensively between Latin American countries, even neighbouring countries with ports on a common body of water, if they are transhipped via New Orleans, New York, Southampton, or Hamburg. This excessive backhaul in intra-LAFTA trade is only economical in the absence of frequent, large tonnage shipping services between Latin American ports direct. Shipping services for most African LDCs involve

\textsuperscript{1}In his A Latin American Common Market? op.cit., Dell noted the problem of prohibitive shipping rates in intra-LAFTA trade. Using the lumber industry as an example he noted that the shipping rate for lumber between Mexico and Venezuela was $24/ton, while the rate for shipping lumber from Finland to Venezuela (three times as far) was only $11/ton. Such rate differentials discourage intra-LDC trade. Yudelman and Howard (Agricultural Development and Economic Integration in Latin America, op.cit., p.271-76) noted that it is cheaper for Argentina to ship a ton of wheat to the United States, France or West Germany, than to neighbouring Brazil. Consequently, one of the largest LDC wheat importers (Brazil) and one of the largest LDC wheat exporters (Argentina), while being contiguous members of LAFTA with food ports on the South Atlantic, conduct significantly less than half of their total wheat trade with one another.
similar problems, with trade with Europe often being less costly to conduct than trade between fellow African LDCs. Where the LDCs of an integration group depend to a significant degree on ocean shipping for the conduction of inter-member trade joint action with respect to ocean shipping will likely be desirable. Such action could range from bloc bargaining with the regional conference to the development of a regional merchant marine, to a shipping pool of member-merchant marines operated under the direction of a central agency responsible for coordinating shipping schedules according to varying traffic requirements, to the development of transhipment agreements between member merchant marines, or to common flag discrimination in favour of foreign lines offering special regionally oriented services. The member-states of LAFTA are currently considering a number of these possibilities.\(^1\) However, it should be noted that such action may prompt considerable obstruction or retaliation from the conferences and their DC governments.

Economic integration may produce a climate of cooperation in which it is possible to undertake the joint or coordinated provision of trade services for both inter-regional and third country trade. Numerous LDC integration movements have established or plan to establish regional

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merchant marines. The potential for savings on invisibles through the reduction of freight back-haul, partial cargoes, and delayed shipping may often be great. Regional cooperation in trade services may also be extended to the provision of shipping insurance, and to handling and transshipment services.

Finally it may be desirable in some integration groups for the member-LDCs to provide air navigational services and passenger and freight flight services on a regional basis. A high level of equipment utilization is particularly important to efficient air services and may be more readily achievable when services are regionally co-ordinated. Both the EAC and the majority of member-states in the African franc zone operate a common airline. In the Andean Group discussions have been under way for several

1The most notable example is the East African Shipping Line which was established in late 1966 by the member-states of the EAC and Zambia. The Line currently operates four ships, with a total tonnage of just less than forty thousand tons, principally on Europe-East Africa runs. Ownership of the Line is shared equally by the four states.

The RDC also established a common shipping service which started operating between the region and the United States in mid-1966.

The member-states of the Arab Common-Market also planned the development of jointly owned regional shipping lines. The members signed agreements for the formation of an Arab Tanker Company (with a capital value of $90 million to be equally subscribed by the member-states) and an Arab Shipping Company (with a capital value set at $15 million, 30% to be subscribed by the UAR). However, political friction between the member-states have prevented the implementation of these agreements so far.
years for the formation of a jointly owned Andean airline. However, in many cases of integration, as in the CACM, political prestige factors may favour the development of individual airlines on a less efficient, but more nationalistic basis.

In general, it would be preferable in most cases for the member-states of any LDC integration movement to coordinate the development of their transportation and communications systems so as to maximize complementarity and minimize the degree of cross-purpose development. Joint programs aimed at better, lower cost services between member-states would make the administrative measures already undertaken significantly more effective in promoting market integration.
(C) Integration or Regional Development Banks

In any integration movement between LDCs it is particularly desirable for there to be a financial institution which holds a regional viewpoint on integration needs. Such a regional integration or development bank could procure funds through member-state contributions and, or by means of grants from sponsoring DCs. Additional capital could be acquired by floating bond issues on the international money markets. Ideally the bank would favour loans of either a joint nature or involving considerable benefits for economically weaker, less developed partner-states. Emphasis could be placed on regional development requirements with the ultimate objective of promoting closer, mutually beneficial economic ties between member-states. The bank could guarantee the loans of national governments or joint public organizations on approved projects, and also act as an intermediary responsible for the disbursement of foreign aid contributions to the region. In line with its regional role the bank could also act as a regional overseer and advisor on national investment activities. It could stimulate the establishment and refinement of development planning by offering loans at reasonable terms with the stipulation that loan requests be accompanied by detailed location and cost studies of the proposed projects (the costs of such studies being partially compensable in the event of loan denial). Such plan submissions would enable the bank, to varying degrees, to point out conflicts and reduce-
investment duplication within the region.

Three such banks are notable in LDC integration movements; the Central American Bank of Economic Integration (CABEI) in the CACM; the Inter-American Development Bank which deals with both LAFTA and the CACM; and the East African Development Bank (EADB) in the EAC. ¹

Initially CABEI was funded essentially by means of the Central American Integration Fund ($42 million provided principally by the United States). However, the Bank proved to be very successful in attracting foreign capital assistance, so much so that by April 1969, of the Bank's overall resources of $250 million some $215 million (86%) were from foreign sources.² CABEI is prohibited from making loans for purely local or national projects, but otherwise is quite flexible in its loan activities. Of the $150 million in loans made by CABEI by 1969 $88 million (59%) had been for the construction of regional infrastructure, $52 million (34%) for industrial projects, and $10 million (7%) for a regional housing program.³

The Inter-American Development Bank was a product of the 1960 Act of Bogota which called for widespread

¹There are other examples including CARIBANK, but they are less significant entities.

²Source, I.C. Urantes, Regional Integration in Central America, op.cit., p.60, top.

³Ibid., p.60, middle.
economic reforms in the Latin American states. Initially funded at $1 billion with which to finance programs stemming from the Act, the IDB went on to take up the role of a regional integration bank for both LAFTA and the CACM. In 1965 the IDB established the Institute for Latin American Integration which undertakes research, training, and advisory work on matters of integration. In the following year the IDB established the Preinvestment Fund for Latin American Integration to organize and finance preinvestment studies of proposed projects likely to promote the acceleration of integration. The ITN studies are a notable example. In its loan activities the IDB has shown a marked preference for loans to the weaker, less developed Latin American states in an effort to reduce differentials.1

The East African Development Bank was established by the 1967 Treaty for East African Cooperation. Its capital was limited to 400 million East African shillings with the requirement that the three member-states retain authorized stock of the Bank equal to at least 51% of the total capital stock. The Bank is free to accept outside financial subscriptions, both public and private. Its loan activities are restricted to projects aimed at promoting

1Krause and Mathis provide comparative data on IDB loan disbursements per capita which show a marked preference for the lesser developed states. Latin America and Economic Integration: "Regional Planning for Development, op.cit., p. 25, Footnote 74.
industrial complementarity in the member-states. The Bank is specifically required to extend preferential loan access to the two less developed members (Uganda and Tanzania). Over each five year period the Bank must allocate its resources in such a way that Uganda and Tanzania each receive 38.75% of the total Bank loans, with Kenya receiving 22.5%. This is one way of partially redressing differences in the stage of economic and industrial development between the member-states. The Bank is also permitted to distribute funds for external aid agencies where the use of the funds is in accordance with Bank objectives.¹

Such financial institutions may be employed to perform a number of regionally oriented tasks which prove difficult for individual governments to agree upon. In this capacity the regional banks function as a safety-valve thereby avoiding possible repeated inter-member conflicts which might weaken the integration movement.

(D) Finishing Touch Industry Problems

It has already been pointed out that economic integration is aimed at stimulating an increase in the rate and level of regional investment by providing preferential access to a regional market capable of supporting a greater number and variety of efficient industries than would be the case were the national markets segregated. Ideally, the new industries would facilitate significant foreign exchange savings which could be applied to the greater importation of essentials.

It is possible, however, that a large proportion of the newly attracted industry will be of the "finishing touch type". In the CACM the majority of the foreign industrial investment stimulated by integration was of this type. Firms established assembly plants, packaging and bottling facilities, mixing plants for chemicals, paints, cosmetics, etc., and various other final stage operations in which the local value-added (LVA) was quite low (often below 35%) and which required significant additions to the regional import bill. In the CACM case the "finishing touch industries" failed to generate a sufficient income base to enable the member-state governments to recover their revenue losses from tariff elimination. The result was that the governments were forced to either obtain revenue elsewhere or to curb their development activities.

As a rule "finishing touch industries" are among
the earliest industries to be established in LDCs along with export industries, non-durable consumer goods industries, and durables industries having locational advantages. The reasons for this are simple. Most "finishing touch industries" have relatively modest capital requirements, limited technological requirements, low labour and management skill requirements, and are generally assured of reliable outside sources of input supplies. To the investor they are a means (to varying degrees) of circumventing tariff barriers and of penetrating protected markets, while to the host state they are a means of creating much needed employment and of conserving scarce foreign exchange (in integration movements they have the additional advantage of being possible intra-regional exports).^{1} Where industry is little developed they may be essential due to various input shortages or unavailabilities, or to the lack of complementary industry. In such situations they may have significant non-pecuniary external economies, and over time may create sufficient levels of demand, as a group, for various common inputs to warrant the establishment of a local supplier plant.^{2} However, such benefits may be largely offset by exchange problems created by the extra-regional profit remittances of such industries. In the

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^{1} Where import costs from third countries are transferred.

^{2} The strength of this backward linkage generation effect first stressed by Hirshman is difficult to determine and is often felt to be very weak.
CACM the "finishing touch industries" created a large steady capital outflow from such remittances which, lead many people to claim that the principal beneficiaries of integration were foreign investors.

In periods of serious balance of payments deficits the presence of a large number of "finishing touch industries" may pose a new problem in the handling of balance of payments crises. Where a large proportion of imports are various "finishing touch industry" inputs the ability of the member-state or region to readily cut back on third country imports is reduced. Consideration must now be made for the potential unemployment and economic slowdown effects which the curbing of third country imports would entail. In this case it is ironic that a method of import-substitution aimed at reducing LDC balance of payments problems should actually exacerbate them.

"Finishing touch industries" may confer a variety of benefits on integrated LDCs. However, it is necessary that the member-states take appropriate action to ensure that various possible detrimental effects are minimized. To begin with the system of incentives adopted by the member-states could be progressive making greater concessions to those firms entailing a greater LVA, a greater level of foreign exchange savings, a greater level of employment, fewer import requirements, and so on.¹ Companies failing

¹As ultimately in the case of the CACM.
to achieve a minimum required level of LVA, say 50%, could receive only partial elimination of duties on inter-member trade. The proportion being in accordance with the LVA proportion of total unit cost. Temporary fiscal concessions could be extended to firms undertaking expansions aimed at increasing the LVA. Such measures would favour the expanded utilization and development of the regional resource base. The problem of excessive remittances might be combatted by profit plow back and reinvestment requirements on foreign investments aimed at complementing LVA-related incentive measures, limited to certain ranges of LVA and profits, and being inversely related to the level of a firm's LVA (i.e., being less restrictive the higher the LVA component of total production costs). Such requirements and rewards should favour the establishment of "finishing touch industries", but favour even more the development of industries with high regional input demands.

(E) Problems Related to Pricing

It has been suggested that agreed specialization in basic or major industries would be desirable due to its ability to secure markets, avoid duplication, and facilitate reciprocity. However, this creation of a regional monopoly by the member-states may involve a number of problems. Where such industries are run by the state, revenue requirements may make it desirable for the state to attempt to exploit its market position by limiting production and maintaining a high price. It may also be that some of the
specialized industries produce relatively poor products.
The lack of competition, due to effective tariff barriers
and the constraint on market entry, will result in the con-
tinued production of inferior products unless such industries
are responsive to the complaints of other member-states.
For this reason it may be desirable to limit "agreed special-
ization" agreements to a specified period, say five or ten
years, commencing on the first day of plant production.
Such a period would provide such industries with the bene-
fits of a guaranteed sole supplier position while requiring
them to produce products of acceptable quality at satis-
factory prices.¹

An alternative solution to the monopoly problem,
whether due to "agreed specialization", the limited size
of the regional market, the expansion of state monopolies,
or whatever, might be the creation of a regional pricing
authority. Such a body would be required to look into the
output and pricing practices of firms in industries for
which there are only one or two regional producers. Such
an authority could be provided with a number of tools with
which to induce compliance with its recommendations including;
the imposition of restraints on the intra-regional trading
activities of such firms, the reduction of third country
import tariffs and other import restraints on the products
of such firms, and the invocation of escape clauses in
specialization agreements. Such a watchdog body would likely

¹This idea was first espoused by Prebisch and is fundamental
to the structure of the CACM "integration industry" agreements.
require ministerial representation at its head.

In situations where the trade and retail activities of member-states come increasingly under government control, inter-member price competition in product markets may become meaningless or disappear. Trade will no longer be in response to comparative price differences, but instead, will reflect member-state policy on trade and trade-related activities. In the Arab Common Market the United Arab Republic, Iraq, and Syria have progressively socialized their economies with the result that their trade activities are increasingly planned. Where trade is planned tariff and quota eliminations do not effect state decisions to trade. Furthermore, they severely limit the ability of private producers in non-socialized states to take advantage of tariff eliminations. Where LDC economies become increasingly socialist "trade liberation integration" may be meaningless. However, possibilities for "production integration" may persist.

(F) Integration and Foreign Investment

One of the major benefits of economic integration between LDCs is the potentially greater ability of the group to attract foreign investment. Such investment is particularly desirable for it provides scarce capital and technological-managerial know-how which domestic investors may not be able to provide either as readily or as extensively. If the maximum local benefit is to be derived from this
investment it is essential that the host government be in a position to effectively influence its nature and direction. Matters of the sectors in which foreign investment is particularly desired, the location of production activities, the choice of production techniques, the extent of local income components, output growth potential, and so on, are all of concern to host governments. As a rule the desired influence is secured via various fiscal incentive programs and special government agreements with foreign investors. Generally, in all LDC integration movements, but particularly in those between small, economically weak LDCs, it is essential that measures be taken to ensure that subsidiaries of large international firms of DC origin do not take the lions share of the benefits of economic integration. Appropriate policies should be formulated to ensure foreign investment takes a constructive, but subordinate role, in integration.

Foreign firms may have notable advantages over domestic LDC firms which enable them to outcompete the domestic firms in the regional market. Multinational firms will generally have considerably greater capital backing and, or more ready access to loans than corresponding nationally-based LDC firms. Consequently, they are more readily able to take advantage of the opportunities provided by a regional market. Multinational firms will often have much greater experience in developing new market outlets and distribution networks in foreign markets, and are likely to have a considerably larger manpower pool with which to handle
the problems of expanded production activities. They may even have existing distribution networks for previously imported products which may subsequently be employed to market regionally locally-produced products. Greater knowledge of production possibilities, available equipment, and supply outlets could place foreign companies at a further comparative advantage. Intra-corporation and, or established inter-corporation supply relationships may give foreign companies notable advantages in acquiring essential inputs while on the other hand patents, licenses, low volume purchasing, and the unwillingness of foreign suppliers to extend credit to small LDC firms could place LDC producers at a marked disadvantage in acquiring inputs. Such capabilities may make it possible for foreign firms to take greater advantage of the production possibilities offered by the expanded regional market and to effectively reduce the role of local producers and investors in the integration process. This type of development could be potentially disruptive to an LDC integration movement. Local participation is essential if economic integration is to survive. Measures to ensure such participation and to direct foreign investment to those areas where it is most desired might include:

1. a selective system of fiscal incentives (common)

2. the requirement that foreign firms be open to local participation (common)

3. the encouragement of production licensing

4. the encouragement of joint domestic and
foreign private industrial undertakings (i.e., industrial consortiums). 

(5) requirements for the purchasing of inputs by foreign firms from intra-regional producers where such goods are of comparable quality and are competitively priced (common) 

(6) restrictions on the foreign takeover of domestic firms. (common) 

(7) prohibition of direct foreign investment in specific industries or sectors where development by domestic capital is feasible and likely in the near future. 

(8) provision of government technical services to industry on an integrated basis. 

Such measures could be employed to increase local participation in the development of regionally-based industry, however, it should be recognized that the costs of adopting them will vary significantly, both between LDC groupings, and between participant states within individual movements. Furthermore, some of these possible measures require universal adoption if they are not to favour some states more than others. This may be particularly difficult in some instances. 

It appears to date that only one LDC integration movement has made extensive provisions for the control and direction of foreign investment on a regional basis, that

1 The situation where foreign firms bought out local firms, expanded and modernized them for production on a regional basis was recurrent in the CACH. It is questionable whether the "modernization" was worth the annual cost of remittances and loss of government revenues.
movement is the Andean Common Market. The participant states, in response to growing fears of excessive foreign ownership and influence, conducted a number of extensive studies into the production practices, and various financial and legal arrangements of foreign-owned corporations. "These studies concluded that the costs of ... a laissez-faire treatment of foreign private capital was very high, and the benefits derived by receiver countries, extremely limited." 2

Subsequently a common code was developed for the treatment of foreign investment within the region. In mid-1971 the Common System for Treatment of Foreign Capital and on Trademarks, Patents, Licenses, and Royalties was implemented by the participant states.

The Andean investment code deals with foreign investment on a sectoral basis. New foreign investment is strictly


2 Avery and Cochrane's quote of M.S. Wionczek, Avery and Cochrane, op. cit., p. 90, middle.
Forbidden in the fields of public service, insurance, finance, banking, internal transportation, domestic marketing, and areas of publicity (radio, television, newspapers). In addition all banks are required to become 80% domestically owned within three years of the code becoming operational if they are to continue to receive new local deposits.

Foreign owned companies in the insurance and transport sectors have been given three years in which to sell 60% of their shares to nationals. Companies operating in the Andean region have been divided into three categories;

1. national or domestic: a minimum of 80% regional domestic capital participation or ownership.

2. mixed or joint: 51%-80% regional domestic ownership.

3. foreign: less than 51% regional ownership.

Firms with less than 51% regional ownership are barred from free trade treatment within the region unless they are willing to transform into mixed or national enterprises within a specified period of time. The transformation period for Chile, Columbia, and Peru is fifteen years, while for Bolivia and Ecuador it is twenty years. In either case local participation is required to reach at least 15% within three years and 45% by the end of ten years. New foreign investment in forestry and in the extraction of minerals and oil is to be undertaken jointly with the host government.

1Some exceptions have been made. See Milenky, "Developmental Nationalism in Practice..." op.cit., p.57, bottom.
Annual profit remittances abroad on such investments are limited to 14% of the original investment, as is the case for most foreign investments. In manufacturing the reinvestment of profits is limited to 5% unless permission is given for greater reinvestments levels. Only capital equal to the initial investment can be reexported, and only when the enterprise is sold or liquidated.

To date the Andean investment code has received a mixed reception both within and outside the Andean states. In December, 1971 the Columbian Supreme Court invalidated the code. However, it is expected that negotiation and the granting of suitable exceptions will bring Columbia to accept it. Numerous groups within the region are extremely wary of Chile's hard line on foreign ownership and have had a moderating effect on the treatment of foreign capital. In its external bloc trade relations the group has met with foreign doubts over the code and it is questionable whether their assurances that foreign investment is welcome (so long as it benefits both the donor and recipient state) will relieve these doubts. Integration movements can benefit greatly from foreign investment and this must be kept in mind when measures to ensure local participation are being formulated. Whether or not the Andean code is too restrictive only time will tell. A visibly increased government responsiveness to the needs and problems of foreign investors could go far to relieve any fears of foreign investors.
(G) Self-propulsion and Reversability of Gains

At the risk of oversimplification, it may be asserted that in given circumstances, there will be a consistent trend towards a higher degree of integration, more complex co-operation, and expansion of the geographical area of integration.\(^1\) This trend tends to favour new initiatives for co-operation at various stages and levels.\(^2\) The explanation lies, perhaps, in the steadily growing industrial, technological, financial, commercial and organizational interdependence of countries. Every effective step on the path to integration tends to provoke a chain reaction: horizontally, by producing and spreading progressive structural changes, and vertically, by stimulating even closer integration.

This theme that integration promotes its own expansion is recurrent in readings on economic integration. There is a certain logical attractiveness about its fundamental notion that the principal focus of attention in integration matters changes as integration proceeds, tariff elimination leading to the need for "point of origin" rules and systems, or the adoption of a common tariff system; a common tariff system requiring common fiscal incentive schemes for investment; these in turn favouring coordinated tax systems, transport rates, subsidy programs, etc; which in turn favour increasing degrees of harmonization of various economic and social policies; all of which lead to that vague but ultimate state of integration which Balassa coined as

\(^1\)UNIDO, UNIDO Monographs on Industrial Development, Industrialization of Developing Countries: Problems and Prospects, Monograph No.18, Regional Co-Operation in Industry, New York, 1969, p.3, top.
being "total". However, this reasoning is perhaps too logical. Certainly as integration proceeds it presents a growing number of new problems which need coping with, but that does not necessarily mean that such problems will be readily solved. Acceptable solutions may not be readily at hand, or participant states may be hesitant to carry the experiment further until some definite conclusions are available on the net result of initial endeavours. In some cases the demands of integration may be unacceptable, or the benefits too sparse or lacking. Under such circumstances the integration process may well reverse with participant states reducing their mutual concessions to varying extents.

In some cases, the movement may collapse with the total dissolution of union obligations. This possibility requires serious thought in integration matters for it means that the greater is the extent to which the economies of participant states are integrated, the greater will be the resultant costs of integration dissolution. Such a break would leave some industries with insufficient markets to warrant full capacity operation. Other industries may be forced to reduce or cease production due to difficulties in obtaining inputs which were previously readily available from producers in fellow member-states. Such difficulties probably arose in Central America after the 1969 disruptions of the CACM. In integration movements where major industries have been horizontally and, or vertically integrated such deficient demand and deficient supply problems may be
extremely serious. It may be possible in some cases for the unemployment and capital loss effects of dissolution to be so severe as to make the participant states worse off than they would have been had they continued to develop in isolated compartments. Such circumstances might place very heavy, if not excessive demands on individual governments to shore up the structural gaps in the national economies resulting from regionally oriented development and specialization.

Needless to say some integration gains will be irreversible. For instance where the development of certain infrastructure or "master industries" was a prerequisite for further industrial development the consequent backward production linkages of the induced industries may be sufficient to warrant a continued high level of capacity utilization in the prerequisite industry or infrastructure, despite a reduced level of integration. Where industries were originally undertaken on a regional basis, but subsequently developed a national base as the region and its constituent states developed, again excess capacity problems may be limited. Integration may initiate an industrialization drive which outlives the integration movement, or else holds it together.

An integration movement may snowball in a virtuous

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It should be noted that only under the severest type of break in cooperative relations would participant states be likely to permit this type of development to proceed.
sphere benefitting all member-states to an ever increasing degree, it may stagnate at a certain level of achievement with specific benefits and costs to each state, or it may regress to total dissolution with numerous net long run benefit-cost possibilities. It is essential to keep this in mind. Much depends on the composition and nature of the membership of an integration movement, and on their attitudes towards cooperation with fellow members. Certainly some integration groupings between LDCs have a greater success potential than others.

(H) Non-Economic Factors and Economic Integration

Up to this point the concern has been with factors and conditions having a readily detectable impact on the economic functioning of the integration movements between LDCs. A large number of conditions which have an important bearing on the ultimate performance or even the feasibility of integration have been deliberately left aside so as to make it possible to review the basic economic aspects of integration with fewer reservations. However, it is important to realize that economic integration may have extensive social and political ramifications which are fundamental to the continued existence of the movement.

Economic integration places a large number of demands on member-state governments, demands which are often difficult to comply with. This is particularly true for recently
independent states which are trying to develop a nationalist feeling in their citizenry. Integration, be it political or economic, entails the sacrifice of various sovereign powers and the limitation of others. This reduction in sovereignty often runs counter to nationalist tendencies and in some instances may result in fundamental conflicts of interest. ¹ No LDC can be expected to compromise its national interests for a vague economic ideal, nor should it. However, economic integration demands a certain degree of compromise between member-states if it is to continue to function. For this reason it is desirable that member-LDCs hold a strong sense of mutual interest and group loyalty. The stronger this regional orientation of the member-states the more likely they will be able to resolve their conflicts of interest, to compromise, and to come to agreement on the sharing of integration's costs and benefits.

There are numerous conditions which favour integration between some states more than between others. Apart from the previously discussed need for there to be the potentiality for mutual economic gains in excess of the gains to be had from isolated development, other attributes conducive to inter-member cooperation are desirable. Good examples of such attributes are provided by LAFTA in which inter-member

¹LDCs are particularly sensitive to integration requirements which compromise their powers to tax, conduct foreign trade agreements, plan development projects, and generally to freely manipulate the direction in which their economy is moving.
similarities with respect to race, religion, language, culture, and historical background have had a cohesive influence, as have the similarities in their economic and political systems. The Central American integration movement had similar attributes combined with a historic desire for unification stemming from the early nineteenth century. Many of the central and west African integration movements drew heavily on past colonial ties for the stimulus to cooperate, as did the East African community. Arabism may be seen as the unifying force behind the Arab Common Market, while in the Maghreb Islam and cultural similarities have a cohesive influence.¹ Such factors promote a sense of regionalism and group loyalty between the participant states which is often crucial to their ability and willingness to weather integration storms.

The absence of such non-economic factors may make comprehensive integration between some LDCs extremely difficult, if not altogether impossible. Various English-speaking and Francophone LDCs in Africa have repeatedly attempted to come to arrangements for subregional economic integration, yet have found language differences; differences in economic and political institutions; differences in the basic approach

¹The cohesive influence of Arabism tends to be intermittent, and has lately proved to be too weak to encourage compromise solutions to a growing number of conflicts of interest in integration matters. The demands of nationalist drives, political rivalry, and economic self-interest have proved too powerful for any regional orientation to cope with. Consequently the development of the market has come to a virtual standstill, if not actually regressed.
taken to numerous problems; and various other differences stemming from their British and French colonial backgrounds; to be fundamental stumbling blocks in any proposed integration endeavour. In South East Asia major differences with respect to religion, language, race, political and economic systems, international political alliances, and trade orientation are said to be so extensive as to virtually rule out any possibility of comprehensive integration between the LDCs of the region. In numerous integration movements group cohesive factors have proved to be too weak to deal with conflicts of interest with the result that the movements have either stagnated or dissolved.

Political rivalry between member-states is a phenomena which can be either a boon or a burden to integration. In situations where a number of economically stronger member-LDCs each seek to develop a significant regional influence or to establish opinion leadership within the integrated region, rivalry may be beneficial. It may make such states particularly willing to grant concessions and safeguards to the weaker members, possibly in a notably competitive manner as was the case of U.S.-Russian aid to underdeveloped countries in the 1950's and 60's. On the other hand political rivalry may be divisive if it leads to the development of factions.

1See the comments of Č. Wilcox, "Regional Cooperation in Southeast Asia", The Malayan Economic Review, VOL. IX NO.2, 1964, pp. 106-12.
Political stability is particularly desirable in integration between LDCs. Inter-member conflicts can be fatal to an integration movement as the CACM experience proved.\(^1\) Political stability within individual member-states is also desirable for economic disruptions in one state will likely generate repercussions to the other member-states through their trade relationships. Where relatively high levels of interdependence have been developed such carry-over effects may have a significant effect on the regional level of economic activity.\(^2\) Furthermore, political instability may frustrate much of the investment incentive effects of integration. Domestic and foreign investors alike will be hesitant to invest in plants to serve markets which may be unilaterally closed to them.

It is highly likely that most LDCs would be unwilling to transfer sovereign powers to a supranational authority. Consequently such matters as monetary and fiscal harmonization, development planning within a regional framework, and other matters requiring a regional approach would more likely be

\(\text{\footnotesize{1}}\) Although the CACM weathered a number of frequent and violent changes of national governments without disruption of the integration program. See A. Segal, "The Integration of Developing Countries: Some Thoughts on East Africa and Central America", \textit{Journal of Common Market Studies}, VOL. V NO.3, 1967, pp.252-82, pp.278-79.

\(\text{\footnotesize{2}}\) In the EAC the coup by Major General Amin in Uganda, internal unrest, and the "recognition dispute" between Uganda and Tanzania, have lead to serious disruptions to trade within the community.
undertaken through mechanisms for joint action involving a minimum sacrifice of sovereignty.

Integration will likely make member-states increasingly sensitive to various policies and programs pursued by other members. This may make it necessary for members to consult one another on matters of important social or political measures.

Apart from considering the various political aspects of non-economic factors it is important to realize that such factors may significantly influence the economic performance of integration at the micro level. Where individual member-state consumption patterns are widely divergent it is important that consumers be willing to modify their consumption behaviour. Streetten refers to this quality as the "plasticity of demand". Consumption patterns tied to traditional goods or showing preference for national or racial sources of supply may frustrate effective market integration and therefore the achievement of the gains associated with specialization and large scale production. Similar problems may arise out of excessive loyalty to or prestige consumption of imported goods. Such matters require consideration in integration proposals. It may be that extensive advertising efforts by both public and private interests will be required in order to familiarize consumers with the variety of products

available within the region and to overcome traditional consumption rigidities.

(1) How and when to Begin

In the discussion of additional integration matters it is necessary to consider the questions of which forms of integration LDCs should adopt, and how and when they should initiate the integration process. This paper has stressed the problems and benefits of comprehensive trade liberation to the relative neglect of sectoral integration. There are a number of reasons for this. To begin with comprehensive integration is stressed because sectoral arrangements are regarded as being possible preliminary steps along the road towards the ultimate objective of comprehensive integration. Secondly comprehensive integration is regarded as being likely to have a much greater growth and development influence than sectoral arrangements. The market expansion effect of comprehensive integration is both more extensive and more immediate, particularly in relation to sectoral production integration endeavours. Products, factors, industries, and sectors are extensively interrelated in the market economy. While sectoral agreements may influence the level of economic activity in some industries, the extent of the expansionary effect will be limited because the demand conditions and supply constraints of many industries will be relatively unaffected. The spill over effects of some sectoral integration arrangements may be very limited. Certainly sectoral
agreements may break particular production bottlenecks, but so can comprehensive agreements and almost always with greater spread effects. Since the growth of any one industry is dependent to varying degrees on the growth rate of others, it is only natural to expect a considerably greater acceleration in the rate of growth of an economy under comprehensive integration than under sectoral arrangements (ceteris paribus). The possible inducements to private investment will likely be much greater under comprehensive integration than under sectoral. More industries will benefit from an immediate expansion of the market and hence an expansion of planning horizons with consequently wider investment opportunities. Furthermore, investors, both domestic and foreign, are likely to undertake investment sooner and on a larger scale the more extensive are integration commitments. If economic integration between LDCs is to significantly affect the overall level of economic activity, to instill a growth or boom psychology, and to have a maximum modernization influence it must be undertaken along a wide front. Sectoral agreements leave the initiative on how and when LDC markets are to be integrated up to the member-governments alone. Comprehensive integration on the other hand permits a relatively greater degree of private sector initiative. Where government financial and manpower capabilities are limited sectoral integration endeavours may be limited by the need to conduct detailed sector by sector surveillance to determine potential and actual benefits and costs, and to intervene
when necessary. Under such circumstances reciprocity may be more difficult to ensure and more demanding in terms of government participation. Comprehensive integration on the other hand offers wider specialization opportunities and hence an increased number of ways in which reciprocity requirements may be fulfilled. It permits the participant governments to adopt a more macro role in directing integration and may yield considerably greater returns on government manpower and capital allocations.

Comprehensive integration does, however, place considerable demands on LDCs. The member-governments must give up certain sovereign powers and sources of revenue, they must preserve their national interests while maintaining a cooperative relationship with their fellow member-governments, and they must take on new and expanded roles which may stretch their financial and manpower capabilities to their limits. The fact that comprehensive integration of the trade liberalization type has been undertaken between LDCs in South and Central America, the Caribbean, and throughout Africa, suggests that these requirements are not regarded as being unmanageable by a fairly large number of LDCs. However, for some LDC groupings the abilities required to cope with and benefit from comprehensive integration may be lacking. The Economic Commission for Asia and the Far East (ECAFE) has long regarded comprehensive integration of the free trade area or customs union type as being premature for the countries of the ECAFE region, though it regards such a regional
grouping as desirable in the long run.\textsuperscript{1} ECAFE suggests that the LDCs of the region adopt a wide variety of forms of cooperation ranging from technical exchange programs and mutual consultation on common areas of interest, to joint projects of varying degrees of complexity and involvement, state trading agreements, agreed specialization in particular industries with special trade preferences or purchase and sale quotas, to development plan harmonization on an industrial or sectoral basis.\textsuperscript{2} All of these measures fall short of sectoral integration of either the trade liberation or production type. The approach calls for a gradual, step by step movement toward integration progressing from economic cooperation to economic coordination, and eventually to economic integration, with unification measures first on a subregional basis, and later on a regional basis. Various stages of this approach may be appropriate to some LDC groupings in Africa where political, economic, and social ties are at a relatively early stage of development.

It appears to date that sectoral trade liberation integration has not been undertaken on any significant scale by any LDC group. This is probably traceable to GATT's


\textsuperscript{2}See Y. Lim's article, \textit{ibid.}
comprehensivity integration requirements. However, such a process could be particularly attractive as a gradual approach to the formation of a free trade area or customs union. Experience gained in a sectoral common market could prove invaluable in cementing ties between LDCs. The costs of such endeavours would be relatively quite small; the potential losses due to polarization, backwash, and reversibility limited; the demands on governments to concede sovereign powers and revenue claims relatively slight; and the demands on government manpower manageable. The costs of premature comprehensive integration or comprehensive integration with inappropriate parties can be tragic. For this reason it would be desirable for GATT to modify Article XXIV to permit less extensive integration efforts, at least between LDCs.

Production integration on a sectoral basis circumvents somewhat the GATT constraint, however it is questionable as to what extent it can be applied on a wide sectoral front.\(^1\) RCD is currently proceeding along these lines, however it is still only at a formative stage.\(^2\) Sectoral production integration may prove particularly useful in overcoming the

\(^1\)The financial and manpower requirements may rapidly become extensive and exceed those of comprehensive trade liberation integration.

\(^2\)COMECON is building a wealth of experience along production integration lines, however it is questionable as how readily and to what extent this experience can be tapped considering the development differences between the COMECON European states and the LDCs of Asia, Africa, and Latin America.
market constraint felt by LDCs whose economies are becoming increasingly socialized or subject to direct production and, or trade controls by the state.

The form of economic integration, if any, to be adopted by particular LDC groupings will depend on their political, economic, and social circumstances vis a vis one another and the rest of the world. Similarly the time to begin the move towards economic integration with neighbouring LDCs will also depend on the various factors involved. ECLA regards the undertaking of comprehensive trade liberation integration immediately as essential if Latin America is to avoid economic stagnation and develop. ECAFE, on the other hand, regards this approach as being too much too soon for the Asian LDCs. They endorse a gradual, precautionary approach with slowly increasing degrees of cooperation, and regard comprehensive integration as something desirable in the distant future. Each is probably appropriate to its respective setting.
VI) Conclusions

LDCs have approached the development problem with various combinations of three production alternatives; primary production for export, manufacturing for export, and manufacturing for domestic consumption. It has been pointed out that each of these alternatives involve a number of problems which may constrain the growth and development rates of some LDCs.

Primary production for export is the most trodden path on the LDCs' road to development. Many LDCs depend heavily on exports of a few primary products to a small number of principal buyers. Their ability to develop and grow depends on their ability to import essential capital, inputs, and specialist services which, for a variety of reasons, are not available domestically. The ability to import in turn depends principally on their ability to earn the necessary foreign exchange through the sale of their primary products on world markets. For some LDCs exporting certain primary products this presents no particular problem, there being a strong market for all that they can produce. However, for a significant number of other LDCs this is not the case. The demand for many primary products is price and income inelastic, a fact which when combined with relative excess production capacity in the LDCs, results in the inability of individual LDCs to secure the foreign exchange necessary to meet their development requirements. Furthermore,
the development of new primary products for which there is a ready world market, and reduced dependence on the earnings of any one export, are often very difficult to achieve, and in some cases economically impossible. The desire to diversify production to overcome the deficient demand problem has lead an increasing number of LDCs to undertake the production of manufactured goods either for export or for domestic consumption.

A few LDCs have proved particularly successful in developing manufacturing for export, however, they are notably the exception rather than the rule. Isolation from world markets, production inexperience, technological constraints, lack of supplementary industry, and so on, all work against effective LDC industrial competition in world markets. Import-substitution in manufactures on the other hand has been limited by the size of national markets which are often too small for the development of an important industrial sector, except under heavy protection. The result is that many LDCs may find any combination of the three development approaches insufficient to meet their growing development needs when undertaken on a national basis. Economic integration may be a means of relieving, to varying degrees, the constraints involved, and of accelerating the rates of growth and development of participant LDCs.

When LDCs seek to develop on an individual basis they face the constraint of the size of the national market which, depending upon its magnitude, is only capable of
supporting a limited number and variety of industries. For many LDCs the domestic market is prohibitively small, while for others the potential for easy or efficient import-substitution is soon exhausted. Economic integration, by uniting a number of separate national markets into one large regional bloc, creates a preferential market which is capable of supporting on an economic basis a much greater variety of industry than that possible through segregated growth. It becomes possible to establish industries for which the separate national markets provided an insufficient base. Also it makes it possible for both new and existing industries to benefit from the many economies of large scale production which often yield major cost reductions. Access to an expanded resource base, when combined with an increasing number of competing end uses, should lead to increased efficiency in the allocation of resources within the region. Furthermore, increased competition or the threat of it should have beneficial "belt-tightening" effects on existing industry. Increased industrial specialization and trade within the integrated region may significantly reduce the costs of national industrial development, while at the same time accelerating the process. The job creation effects of such a development process may also be very great. This is an added benefit of particular importance in light of the unemployment problems currently plaguing so many LDCs.

The effects of integration on investment levels in the participant states may be great. Many investments which
were not profitable on the basis of national markets or isolated development may become economically feasible when undertaken on the basis of an integrated market. Such possibilities may provide much needed outlets for domestic investment as well as increase the participant states' capacity to absorb foreign aid and investment productively.

For some LDC groupings the integrated market may be sufficiently large to support the development of basic industries on a regional basis. Such developments could enable the participant states to generate part of their growth internally, rather than strictly indirectly through the expansion of exports. In addition, it would enable them to reduce the lop-sided nature of their economic structures, a situation which makes them particularly susceptible to the vagaries of world trade.

The benefits of integration may be particularly significant when the process is undertaken on the basis of coordinated development planning and contrived complementarity. Apart from the obvious benefits of minimizing project overlap and duplication, such an approach could facilitate the simultaneous achievement of the benefits of both balanced and unbalanced growth. The main problem with the "big push" approach to LDC development was that it required capital, resources, and markets substantially beyond the means of most LDCs. Economic integration may enable LDCs to overcome many of these constraints. Production specialization at the national level based on comparative advantages within
the region may be employed to yield a diversified regional production structure serving the needs of the integrated market. Specialization and complementation agreements could be employed to maximize complementarity in industrial development and to cultivate the development of production linkages. Such activities could not only stimulate private investment, but also increase the return on public expenditures, be they directly productive or infrastructural.

Ideally integration will stimulate the development of a virtuous circle type of growth process with initial investments in production and infrastructure, stimulated by the creation of the regional market, giving rise to new needs for further investments in production and infrastructure in a cumulative manner. Such a process may mold the growth climate which it requires through its various external economies, modernization influences, and other social repercussions.

It may be possible for integrated LDCs to improve their terms of trade with the outside world. Reduced dependence on external sources of supply, joint purchase and sale activities, and bloc bargaining in trade and tariff negotiations may significantly improve their bargaining positions. Further savings may be made on trade related invisibles.

In relation to the three development approaches several conclusions may be drawn. Firstly, integration is a means of changing the nature and extent of dependence on
primary export earnings. Increased self-sufficiency in
products previously imported, particularly non-essentials,
will reserve a larger proportion of export earnings for
the importation of goods and services essential for growth
and development. At the same time the diversification of
production envisioned should reduce the impact of fluc-
tuations in the export sector. Secondly, integration may
serve as a mechanism by which LDCs can develop and refine
industries manufacturing for export without subjecting them
prematurely to overwhelming competition on world markets.
Thirdly, integration can significantly increase the scope
for import-substitution as well as the efficiency with which
the process is undertaken. The benefits of integration,
like integration itself, will likely be of an ongoing nature
so that what may only appear as minor increases in production
and trade in the short run may in the long run produce a
dramatically greater level of economic development well in
excess of that feasible via segregated development.

Much stress has been placed on the importance of
static customs union theory in discussions of economic inte-
gration between LDCs. However, the static customs union
theory is of very limited relevance to economic integration
between less developed countries, especially in its capacity
to serve as a basis for an adequate evaluation of the major
benefits and costs involved. To begin with it employs as
its foundation a large number of assumptions which are com-
pletely unacceptable when considering integration between
LDCs. To attempt to employ it nonetheless is to take the LDCs' underdeveloped state for granted. Even in dealing with integration between DCs, which is the context within which the static theory was developed, it is found to have serious flaws. It is incomplete. Many important matters which have a static aspect are passed over, for instance, the impact of tariff elimination on government revenues. Furthermore, the normative values which are placed on "trade creation" and "trade diversion" in the static theory (i.e., "trade creation" is "good" and "trade diversion" is "bad") are unacceptable to LDCs.

Probably the most serious problem with static customs union theory so far as LDCs are concerned is the fact that it is static. It holds the reallocation of production as the principal source of gain from integration. This is traceable to the assumptions upon which it is based, particularly the assumption that the economic structure of each participant state is highly developed with broadly based specialization according to comparative advantages. The assumption implicitly rules out the possibility of a major structural transformation taking place in the participant economies. Yet structural transformation in the direction of increased industrialization is fundamental to LDCs courting of integration. It is the means by which they seek to accelerate their rates of economic growth and development, and to avoid possible long run stagnation. This is the principal gain to be had from integration by the LDCs, a
gain which is excluded from the static analysis. Economic integration between LDCs is basically a dynamic phenomenon with a future orientation. As such it is more amenable to the analysis of development theory, growth theory, and regional economics, than to the static customs union theory.

Many of the benefits of economic integration will likely occur more readily in movements between LDCs of comparable economic size, stage of development, degree of industrialization, etc., than between LDCs having major differences in these respects. Where major differences along these lines exist between participant LDCs the operation of market forces will likely result in the "polarization" of growth in larger or "head start" member-states. This phenomenon may also be accompanied by the occurrence of "backwash" in the weaker states. The occurrence of these phenomena has been a major factor in the dissolution of a number of integration movements and fears of such developments serve as a principal deterrent to economic integration between LDCs. This does not mean that economic integration cannot be undertaken successfully between LDCs exhibiting such differences, but rather, the greater are such differences the more and greater will have to be the corrective measures adopted to ensure mutual net benefits from integration. Such measures may include various compensatory fiscal transfers, the joint development of countervailing growth poles in the weaker states, the extension of preferences in development activities by integration banks and regional development
corporations to meet the needs of weaker members, the granting of production monopolies to ensure a minimum degree of industrialization, various forms of joint or coordinated industrial development such as complementation agreements, grace periods in the implementation of tariff reductions, temporary one-way free trade, the right to grant greater foreign investment incentives, access to various types of equalization funds, and a plethora of guarantees of effective assistance in dealing with many possible problems ranging from market displacement to regional trade imbalances. All of these measures are traceable to the need for reciprocity between the participant states. LDCs will continue to take part in an integration movement only so long as they benefit to a degree exceeding that possible through isolated development and differing not too greatly from the benefits which they deem other member-states to be receiving.

In most LDC integration movements trade liberation alone will not be sufficient to ensure effective market integration and reciprocity. Participant governments will have to coordinate a number of their activities and make various concessions if industrialization and trade are to be mutually expanded. Effective communications and transportation links will have to be developed between the member-states so as to minimize the economic distance between the various markets of the region. Credit and payments mechanisms will have to be developed to deal with intra-regional trade imbalances as well as mutually acceptable means of
correcting continued imbalances. Harmonization will be required with respect to a number of effective indirect trade restraints (such as large differences in the tax rates, exemptions, subsidies, customs drawbacks, fiscal incentives, transportation rates, etc.,) except where differences are desired for their benefit equalization effects, as in the case of concessions to weaker members. In addition, cooperation will be required to varying degrees in the operation of countercyclical fiscal and monetary policies where the open nature of the participant economies may facilitate policy carry-over, the transmission of business cycles, and associated problems. Similarly varying degrees of cooperation will be required in matters of exchange rates stability and the adoption of new rates because of their repercussions on intra-regional competitive positions. Such requirements may be particularly difficult to meet should conflicts of interest arise over revenues, levels of protection, the distribution of benefits, and so on. It is in this respect that the presence of certain supportive non-economic factors is desirable. A feeling of mutual interest, a common plight or cause, similarities in political, social, and cultural areas, and various other cohesive factors may be vital to the continued operation of a movement in times of internal stress.

Finally, it should be remembered that economic integration is not a cure-all. While it may yield important
benefits to some LDCs it may give rise to serious problems in others. For some LDCs comprehensive integration may be premature. For them less comprehensive forms may be more appropriate in the short run. For others comprehensive integration may be the ideal catalyst for accelerating their rates of economic growth and development.
Appendices
Appendix I - Economies of Scale

(A) Introduction: The term "economies of scale" is familiar to most students of economics and is usually interpreted as referring to the phenomena of decreasing unit costs of production as the volume or scale of production is increased. However, savings in unit production costs are not the only type of scale economy. Cost savings due to scale may also be achieved in capital investment; in terms of financing and credit; in stocking, shipping, administration, and the purchasing of inputs; and in the marketing of the final product. In some instances it may be necessary to trade-off scale economies of one type against diseconomies of another according to their incremental effects on total production costs over the life of the undertaking. In some industries the choice of the type of production technique to be employed, or the level of plant capacity to be adopted, may involve significant savings in the initial capital investment. Such savings are generally referred to as "economies of scale in plant investment costs," and are measured by the average capital cost per unit of annual plant output capacity (e.g., \$/ton of annual production capacity). The selection of the technique and capacity to be adopted will depend in part on the significance of initial capital investment savings, the anticipated level and rate of growth of demand for the plant's output, the longer term net costs or benefits of building capacity ahead of demand, and so on. This requires the study of the economies and diseconomies involved in each operation of the firm at different levels of plant capacity. Only by accounting for the various scale effects is it possible to determine whether or not it would be preferable to build a larger or smaller capacity operation.

In the following sections of the appendix the basic types of economies of scale will be discussed. Once having done this the significance of economies of scale will be illustrated in a variety of industries, many of which LDCs regard as being highly beneficial to their economic development. The examples should make the benefits of market integration and large scale production obvious.

(B) Various Plant Economies

(1) Indivisibilities: Industrial machinery and equipment is available in specific productive capacities and sizes. Often the different machinery and equipment required by a particular industrial plant is not available in a common size. Different machines have different production capabilities. If the capacity of the plant is equal to a multiple of the productive capacity of each machine employed in the plant then
it will be possible to derive the ultimate benefit from each machine by operating it at full capacity. However, if the output of the plant is lower than the lowest common multiple of the individual machine capacities, then some of the machinery will either periodically remain idle or be operated at a sub-capacity level. When machinery required by the plant is only available in very large capacities such under-utilization may be unavoidable. The effect of this will be higher fixed costs per unit of output. Many essential fixed costs are not directly related to the output capacity of a plant and require a minimum level of expenditure.

(2) Economies of Longer Production Runs: Industries generally produce goods either in batches or in a continuous flow. Preproduction costs may be very high due to the need to develop the product, or to costly tooling and equipment purchasing required for the production process. The re-tooling, change-over, and down-time costs of setting up the production process for a new product involve additional costs which are often not directly related to the level of output. The longer the production run (i.e., the level of output produced before the production process is reset for the production of a different commodity) the greater is the level of output over which the preproduction costs can be spread, and thus the lower is the cost per unit of output. Long production runs are important in most industries, and often produce very significant reductions in unit production costs.

In certain industries (particularly those employing assembly line or job order operations) the labour costs per unit of output may decline significantly through longer production runs. The degree of familiarity with and expertise in performing a particular operation increases, up to a point, the longer the worker is required to repeatedly perform the operation. This is commonly referred to as "learning by doing" and yields significant cost savings in industries such as the machine-tools industry. The phenomena is also important to management efficiency through increased familiarity with the production problems involved in producing a particular product.

Finally, long production runs favour the breaking down of the production process into a larger number of more simple operations. This not only permits the increased

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specialization of labour along Adam Smith's pin-maker lines, but also the introduction of labour-saving machinery and automation. Both effects are conducive to increased efficiency and lower unit production costs.

(3) Equipment Economies: For a variety of industrial machinery and equipment the cost of a unit does not increase proportionately with its capacity or productivity. There are several reasons for this. First, the material input required to produce equipment does not always increase proportionally with the equipments capacity. Often the material input required to produce a particular piece of equipment is related to its surface area while the equipments capacity is related to its volume. As in a cylinder the capacity of a pipe or tank may be \( \pi r^2 h \) while its surface area (material content) would be \( 2\pi rh \). Thus, where the radius of the tank is greater than two, capacity increases at a greater rate than material content. In a variety of equipment where the thickness or strength of the material is invariant over a range of capacity sizes, larger capacity units cost proportionately less to produce. Examples of such equipment include columns, cylinders, tanks, furnaces, boilers, kettles, compressors, pipes, etc.

The cost of some industrial equipment is basically determined by labour costs and the amount of material which has to be machined. When the amount of material contained in a unit increases less than proportionately with its capacity, and the amount of material machined increases less than proportionately with the material content of the unit, the cost of producing larger capacity units increases even less proportionately.

The extent to which the cost of industrial equipment increases less than proportionately with their capacity has been studied by John Haldi and David Whitcomb. They employed a function of the form

\[ C = aX^b \]

where \( C \) represented the cost of the equipment, and \( X \) represented the equipments capacity. The scale coefficient \( b \) indicates the proportionate increase in cost relative to capacity. The results of the study are given in Table I. Of the 687 scale coefficients estimated for a wide variety of industrial equipment, 618 (90%) showed economies of scale (i.e., cost increased less than proportionately to equipment capacity).

TABLE 1
Summary Distribution of Economies of Scale in Basic Industrial Equipment

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<thead>
<tr>
<th>Value of the Scale Coefficient, b*</th>
<th>Installed Plant Equipment</th>
<th>Other Equipment</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Estimates of b (1)</td>
<td>Percentage (2)</td>
<td>No. of Estimates of b (3)</td>
</tr>
<tr>
<td>Under .30</td>
<td>22</td>
<td>3.3</td>
<td>5</td>
</tr>
<tr>
<td>.30-.39</td>
<td>44</td>
<td>6.6</td>
<td>3</td>
</tr>
<tr>
<td>.40-.49</td>
<td>90</td>
<td>14.5</td>
<td>6</td>
</tr>
<tr>
<td>.50-.59</td>
<td>143</td>
<td>21.6</td>
<td>0</td>
</tr>
<tr>
<td>.60-.69</td>
<td>142</td>
<td>21.5</td>
<td>2</td>
</tr>
<tr>
<td>.70-.79</td>
<td>90</td>
<td>13.7</td>
<td>5</td>
</tr>
<tr>
<td>.80-.89</td>
<td>60</td>
<td>9.0</td>
<td>0</td>
</tr>
<tr>
<td>.90-.99</td>
<td>29</td>
<td>4.4</td>
<td>1</td>
</tr>
<tr>
<td>1.00-1.09</td>
<td>18</td>
<td>2.7</td>
<td>2</td>
</tr>
<tr>
<td>Over 1.10</td>
<td>18</td>
<td>2.7</td>
<td>1</td>
</tr>
</tbody>
</table>

Totals: 662 100.0 25 100.0 687 100.0

* Estimate of b in \( C = aL^b \).

1 Much of the equipment in this column directly embodies the technological relationships discussed in the text. Included here are containers, pipes, reaction vessels, kilns etc.
2 This category includes equipment like construction and mining machinery.

Another source of equipment economies is the fact that it does not require twice as much labour, twice as much utilities, and twice as much maintenance service, to operate a machine having twice the capacity of another.

The combination of all the various types of equipment economies of scale may be particularly significant for certain production processes in different industries.

(4) Economies of Specialization Proper: In a number of industries the choice of production technique depends on the scale of operation, certain techniques being efficient when undertaken on a small scale, but inefficient on a large scale of operation. For instance in the production of tonnage oxygen it is economical to use reciprocating compressors in plants with a capacity of up to one hundred tons per day. In plants of 100-200 tons per day it is economical to use either reciprocating or centrifugal compressors, but in plants having a daily capacity of 300 tons or more it is only economical to use axial flow compressors.\(^1\) Another good example is the steel industry. Rolling mills for non-flat products vary from simple operations to fully automatic units as capacity increases from 25,000 tons to 300,000 tons per annum. Similarly, in the rolling of flat products the mills range from reversible Steckel-type mills, to semi-continuous strip mills, and finally to fully continuous strip mills for plants having an annual capacity of one million tons or more.\(^2\)

In many industries significant economies of scale may be reaped by the use of larger capacity, more efficient machinery and equipment. Significant economies arise due to the increased specialization in each basic stage of production which often facilitate scale savings with respect to the use of utilities, labour, and management and supervisory personnel. Indivisibilities and production bottlenecks become less of a problem as the capacity of production is increased. Not only do larger capacity production units benefit from longer production runs, but also from more production runs. Larger plants may be able to specialize in the production of a variety of products and realize economies of scale in the production of each.


TABLE 2

Summary Distribution of Economics of Scale in Plant Investment Costs
(Number of Estimates of Scale Coefficient $b$ in $C = ax^b$)

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>VALUE OF THE SCALE COEFFICIENT, $b$</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UNDER .40-.49</td>
<td>.50-.59</td>
</tr>
<tr>
<td>Cement</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Chemicals, excluding petroleum:</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Gases</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Industrial chemicals</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Plastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubber</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous chemicals</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Desalination</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Electric power</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Petroleum refining &amp; by-products</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Aluminum</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pulp &amp; paper</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Shipping</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Percentage</td>
<td>4.1</td>
<td>5.4</td>
</tr>
</tbody>
</table>

NOTE: These estimates exclude preproduction charges, varying site clearance costs, and other non-production plant investment costs. Source: J. Haldi & D. Whitcomb, "Economies of Scale in Industrial Plants", op. cit., p. 380.
In a study of 221 industrial plants in a variety of industries Haldi and Whitcomb found that .84.2% of the plants were subject to economies of scale in plant investment costs. The results of their study are reproduced in Table 2 below. Some economists have extended the statistical use of scale coefficients to entire industries and have derived a number of low coefficients for a variety of industries as indicated in Table 3 below. It should be noted that various stages of production may achieve economies of scale over different output ranges so that the industrial coefficients given involve a weighted combination of both economies and diseconomies in the various stages of production.

TABLE 3

Industrial Scale Coefficients

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>VALUE OF b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium, ferrosilicon process</td>
<td>.62</td>
</tr>
<tr>
<td>Aluminum ingot</td>
<td>.90</td>
</tr>
<tr>
<td>Synthetic ammonia</td>
<td>.81</td>
</tr>
<tr>
<td>T.N.T.</td>
<td>1.01</td>
</tr>
<tr>
<td>Styrene</td>
<td>.53</td>
</tr>
<tr>
<td>Aviation gasoline</td>
<td>.88</td>
</tr>
<tr>
<td>Low purity oxygen</td>
<td></td>
</tr>
<tr>
<td>Calcium carbide</td>
<td>.47 - .59</td>
</tr>
<tr>
<td>Carbon black, furnace process</td>
<td>.8</td>
</tr>
<tr>
<td>Carbon black, thermal decomposition</td>
<td>.6</td>
</tr>
<tr>
<td>Soda ash, Solway process</td>
<td>.2</td>
</tr>
<tr>
<td>Sulfuric acid, contact process</td>
<td>.7</td>
</tr>
</tbody>
</table>

NOTE: - taken by Moore from a study by C.H. Chilton.
+ taken by Moore from a Harvard Economic Research Project directed by Professor Leontief.


1Haldi and D. Whitcomb, "Economies of Scale in Industrial Plants", op.cit.,
(5) Standardization Economies: Many industries achieve some economies of scale not by undertaking production on a large scale, but by purchasing standardized components which are produced by an outside manufacturer who supplies the particular product to a number of industries all of which employ the component in their final product. In this manner the outside manufacturer is able to produce on a large scale by which he achieves economies of scale, which he passes on in part through lower unit prices. A variety of such industries come to mind including producers of nails, nuts, bolts, screws, ball bearings, industrial gears, industrial crank shafts, diodes, tires, spark plugs, and so on.

Some industries produce a basic product in a variety of forms so that many components are common to more than one of the final products. This standardization or interchange-ability of parts permits the use of longer production runs, increased division of labour and specialization, and various other sources of economies of scale. Good examples of this type of industrial standardization include auto manufacturers, pleasure boat manufacturers, machine-tool industries, transportation equipment manufacturers, and producers of various consumer durables.

(6) Economies Through the Recovery of Waste: Most industrial plants incur waste or scrap materials in the process of production. The recovery of such materials is often not an economical undertaking for small capacity plants. However, plants operating on a large scale may gain significantly from the reprocessing of waste, or from the collection and processing of various by-products of the principal production process. Such benefits are reaped in some basic metal industries, the chemical industries, petroleum refining, and in some synthetic material industries, to name but a few examples.

(7) Stockastic Economies of Scale: Industrial plants generally stock component parts for the various pieces of machinery and equipment employed in the production process. This parts stocking ties up capital which could otherwise be used to yield a return. This cost is generally spread over the level of output, like a fixed cost, and thus adds to the unit cost of output. Large firms often employ varying numbers of different types of machinery and equipment. Since the probability of the breakdown of any one copy of a particular machine is generally independent of another, according to the laws of probability and large numbers, it is increasingly unlikely that a number of any one type of machine or piece of equipment will breakdown at the same time. This enables plants
to reduce the relative amount of capital tied up in replacement parts by employing a lower ratio of replacement parts to total equipment. In industries where a large number of machines of a few basic types are employed in the production process, such savings are often significant.

Stockpiling economies may also be significant in the stocking of raw materials, intermediate products, and finished goods.

(8) Economies of Buying and Selling: Many industries which purchase inputs in large volumes and on a regular basis receive quantity discounts from their suppliers. The granting of such discounts is made possible by the supplier's use of longer production runs and the achievement of various economies of scale. Some industries are able to secure more stable and favourable input prices by backward vertical integration to the basic supply operations for the industry.

The undertaking of production on a large scale may make it possible for a firm to undercut and displace smaller, higher cost producers. In this way economies of scale enable the large scale producers to increase his share of the markets for his products.

(C) Various Expansion Economies: Economies of various types can be obtained when the capacity of existing plants are increased. For instance when plants are initially operating at a capacity level below that of the lowest common multiple it is not necessary to increase the amount of all machines and equipment. Some machines are initially operating at only a fraction of their capacity, thus, once more copies of those machines which were already operating at full capacity are brought into production, it is then possible to utilize the previously idle productive capacity of the underutilized equipment. Such savings result in an increase in total cost less proportionate than the increase in total plant output. Under such circumstances unit production costs may fall significantly due to the more efficient level of operations.

The expansion of productive capacity does not always require proportionate increases in the equipment, machinery, personnel, etc., of all the various plant operations. For instance, administration buildings and personnel may not need expanding at all.

1Patten noted that a common level of management staff could efficiently operate oil refineries of a wide range of capacities. See C. Pratten, R.M. Dean, and A. Silberston, The
The expansion of capacity may be achieved through the use of large scale equipment which was uneconomical for lower production levels. As has been noted the addition to productive capacity of such equipment may be proportionately greater than the addition to total production costs.

(D) Economics of Horizontal Specialisation: Much of the reason for the relatively high costs of LDC manufactures is attributable to the practise of producing a large variety of products each in small quantities. Thus, they fail to become highly specialized in the production of these goods. They forego the economies of longer production runs, increased dimensions, standardization, and specialization. This problem is compounded by the often low quality of the final product resulting in part from the limited experience in the manufacture of various individual goods.

Under the process of horizontal specialization the major products of each industrial group is produced by an individual plant which reaps the full benefits of scale production for the particular product produced. Thus, in a horizontally specialized auto industry one plant could produce sedan cars, another would produce station wagons, still another would produce econovans, a fourth would produce pickup trucks, while a fifth and sixth would possibly produce light and heavy trucks. Each plant might produce two or three models based on a common overall design so as to cover a wider range of markets, but each would become specialized in the production of its specific range of products. This type of industrial group would require access to a large market in order for the horizontal specialization to be economical, i.e., for each plant to reap economies of scale. For most LUCs such a market could only be achieved through economic integration.

Often cited examples of industries in which economies of horizontal specialization are important include textiles, clothing, footwear, automobiles, machine-tools, and shipbuilding.

(E) Economics of Vertical Specialization: There are two basic aspects of vertical economies of scale, the first refers to the separation of successive production stages, while the latter refers to the distribution of the production of constituent parts of a particular final product.

Numerous industries employ a number of basic separate successive operations in the production of their final products. For instance in the basic metal industries the extraction, milling, smelting, refining, rolling, and drawing processes could be separated and carried out in separate plants which specialize in their respective production processes. In order for each industry to achieve economies of scale the overall level of production would have to be very large, thus requiring access to a very large market.

The second form of vertical specialization concentrates on efficient production of the basic components of the final product. Individual plants specialize in the production of a particular basic component of the final product, and thereby employ the most efficient methods of producing such parts. Where the market for the final product is large economies of scale can be achieved by each plant. The automobile industry provides a good example of vertical integration along component lines. Engines and transmissions may be produced in one plant, wheels in another, frames in another, and body panels and trim in still another.

Vertical economies of scale are important in industries such as durable consumer goods, basic metals, machinery, transport equipment, and large diesel engines (3,000 to 30,000 bhp.).

(F) Other Economies Due to Scale: Industries operated on large scale production techniques may achieve economies of scale in activities not directly related to the production process such as the shipping of inputs and final products, the administration of the various plants, the marketing and advertising of the finished product, in research and development activities, and so on.

(G) Scale Savings on Capital: Large-scale industries, particularly those of a joint nature (i.e., a private and/or public consortium), are often able to secure capital at a lower rate of interest due to their greater level of collateral and greater "capacity to repay". They are sometimes regarded as involving a lesser degree of risk due to their ability to produce a wider variety of goods on an efficient scale, and due to their reduced...

1 Actually automobile industries are usually both horizontally and vertically integrated in developed countries. In addition specialist firms usually provide a variety of components, each produced outside the industry on a large scale, such as tires, spark plugs, bearings, radios, etc.
dependence on the market for any one product.

(H) The minimum Market Size for Efficient Production: Each industry requires a market of minimum size in order for it to be able to produce the product on an efficient economic basis (i.e., yielding a normal return to each factor employed). This minimum market size for efficient production varies considerably from industry to industry, and even for different processes or stages of production of any one final product. While various non-durable consumer goods have quite low minimum market requirements, industries of greater capital lumpiness and, or technical complexity require considerably larger minimum markets. Many of the more capital heavy and complex industries have minimum market requirements beyond the means of most LDC markets. It should be kept in mind that the minimum market required varies inversely with the degree of concentration of the population and the level of per capita incomes. Furthermore, tastes and preferences, i.e., consumption patterns and propensities, also effect the minimum market requirements of various industries. For this reason minimum market requirements couched in terms of population figures, are often qualified by data on the level of per capita income, and the assumption of equal access to each consumer. To illustrate this point let us consider the minimum markets required for the economic production of two basic industrial chemicals (sodium hydroxide (NaOH), and synthetic rubber (S.B.R.)) in LDCs.

The minimum economic plant capacity for the production of NaOH by electrolysis is estimated at 20,000 tons per annum. Given that the average per capita income of an underdeveloped region is equivalent of $100 per annum, it is estimated that the minimum market required in order to absorb an annual output of 20,000 tons is approximately thirty-six million people. However, if the average per capita income is say equivalent to $300 per annum, the minimum market required falls to approximately twelve million people.

The production of S.B.R. cannot be economically undertaken on a scale less than 18,000 tons per annum. If the average per capita income is equivalent to $100 per annum, then it is estimated that access to a market of ninety million

1 Note that this is a tenuous assumption given the variations in market density and distribution, and the variations in income levels between regions of LDCs.

2 The data on these two industries was obtained from the UNIDO Monographs on Industrial Development, Monograph No. 8, Chemical Industry, p. 28.
people is necessary in order to dispose of the annual output. However, if the average per capita income of the underdeveloped region is say $300 or $600 per annum, then the minimum market size required to absorb the 18,000 ton annual output falls to eighteen and seven million people respectively.

The relatively small domestic markets of the majority of LDCs makes the efficient production of a great many intermediate and durable goods beyond their ability. In the engineering industries the minimum scale for economic production is often very high relative to an LDCs domestic consumption of the product in question, and its ability to meet the fixed capital and input requirements. Table 4 indicates the magnitude of various requirements for the establishment of a number of engineering industries of minimum profitable size.

(I) Market Required for the Achievement of Economies of Scale:

While the minimum market size required for economic production is often very high relative to the size of LDC domestic markets, the market size necessary for the fullest reaping of economies of scale is even greater. In many basic industries (such as petroleum refining, primary metals, and electric power generation) economies of scale persist up to the largest plants built or even contemplated.¹

In the case of the NaOH industry economies of scale persist in plants of up to 150,000 tons annual capacity.² Even in underdeveloped areas having a per capita annual income equivalent to $300, it is estimated that a market of ninety million people would be required to absorb the annual output.

Similarly, in the case of an S.B.R. industry economies of scale persist up to plants of 180,000 tons annual capacity. With average per capita incomes equivalent to $300 per annum a market of 180 million people would be required to absorb the annual output of the largest efficient plant.

Markets of this dimension are beyond the means of all but a few individual LDCs. Often, even when domestic LDC markets are adequate enough to support plants of a

¹This is the basic conclusion of the study made by Haldi and Whitcomb, "Economies of Scale in Industrial Plants", op.cit., p.373.
²See UNIDO Monograph No. 8, op.cit., pp.28-29.
<table>
<thead>
<tr>
<th>Group of product manufactured, by enterprise</th>
<th>Minimum profitable capacity in 000s of tons (unless otherwise specified)</th>
<th>Fixed capital</th>
<th>Production hours</th>
<th>Annual output</th>
<th>Production workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motors from 0.1-10kw.</td>
<td>1.5-2</td>
<td>230</td>
<td>31 95</td>
<td>5 1.0 14</td>
<td>95 80 350</td>
</tr>
<tr>
<td>Domestic refrigerators</td>
<td>20-25 (000s of units)</td>
<td>80</td>
<td>45 95</td>
<td>20 1.6 35</td>
<td>85 66 300</td>
</tr>
<tr>
<td>Domestic washing machines</td>
<td>20-25</td>
<td>80</td>
<td>45 90</td>
<td>50 1.6 35</td>
<td>85 66 300</td>
</tr>
<tr>
<td>Electro-mechanical domestic appliances</td>
<td>1.5-2</td>
<td>100</td>
<td>30 115</td>
<td>55 16 2.0 20</td>
<td>75 68 250</td>
</tr>
<tr>
<td>Agricultural machinery used in preparation &amp; cultivation of soil.</td>
<td>16-20</td>
<td>45</td>
<td>44 23</td>
<td>65 82 3.0 66</td>
<td>75 66 230</td>
</tr>
<tr>
<td>Agricultural machinery used for harvesting, threshing &amp; sorting.</td>
<td>4-6</td>
<td>42</td>
<td>47 57</td>
<td>72 33 2.2 33</td>
<td>80 76 250</td>
</tr>
<tr>
<td>Metal-working machine tools.</td>
<td>0.7-1.0</td>
<td>290</td>
<td>33 188</td>
<td>90 10 0.8 30</td>
<td>78 70 450</td>
</tr>
<tr>
<td>Pumps &amp; centrifuges.</td>
<td>2-3</td>
<td>180</td>
<td>31 150</td>
<td>56 13 1.0 61</td>
<td>78 72 320</td>
</tr>
</tbody>
</table>
TABLE 4 Continued

<table>
<thead>
<tr>
<th></th>
<th>2-3</th>
<th>4-6</th>
<th>2-4</th>
<th>150</th>
<th>70</th>
<th>0.7</th>
<th>49</th>
<th>90</th>
<th>75</th>
<th>330</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth-mov. machinery</td>
<td>110</td>
<td>60</td>
<td>51</td>
<td>32</td>
<td>1.0</td>
<td>61</td>
<td>80</td>
<td>73</td>
<td>290</td>
<td></td>
</tr>
<tr>
<td>Mechanical handling</td>
<td>58</td>
<td>35</td>
<td>47</td>
<td>60</td>
<td>40</td>
<td>2.2</td>
<td>37</td>
<td>80</td>
<td>70</td>
<td>270</td>
</tr>
<tr>
<td>equipment (light)</td>
<td>4-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining machinery</td>
<td>150</td>
<td>37</td>
<td>130</td>
<td>70</td>
<td>15</td>
<td>0.7</td>
<td>49</td>
<td>90</td>
<td>75</td>
<td>330</td>
</tr>
<tr>
<td>Wood-working machine tools</td>
<td>250</td>
<td>31</td>
<td>255</td>
<td>58</td>
<td>7.5</td>
<td>0.5</td>
<td>34</td>
<td>87</td>
<td>83</td>
<td>430</td>
</tr>
<tr>
<td>Domestic sewing machines</td>
<td>9-10</td>
<td>120</td>
<td>30</td>
<td>190</td>
<td>75</td>
<td>10</td>
<td>1.5</td>
<td>15</td>
<td>72</td>
<td>60</td>
</tr>
<tr>
<td>Food-processing machines (excluding domestic)</td>
<td>160</td>
<td>39</td>
<td>135</td>
<td>52</td>
<td>14</td>
<td>0.7</td>
<td>37</td>
<td>78</td>
<td>67</td>
<td>300</td>
</tr>
<tr>
<td>Machine tools for working plastics</td>
<td>200</td>
<td>36</td>
<td>150</td>
<td>55</td>
<td>12</td>
<td>1.0</td>
<td>31</td>
<td>75</td>
<td>65</td>
<td>380</td>
</tr>
<tr>
<td>Ball &amp; roller bearings</td>
<td>410</td>
<td>29</td>
<td>3500</td>
<td>80</td>
<td>0.5</td>
<td>0.05</td>
<td>34</td>
<td>88</td>
<td>70</td>
<td>16,000</td>
</tr>
<tr>
<td>Railway carriages and trams</td>
<td>20-25</td>
<td>100</td>
<td>39</td>
<td>60</td>
<td>45</td>
<td>32</td>
<td>2.0</td>
<td>37</td>
<td>72</td>
<td>65</td>
</tr>
</tbody>
</table>

Source: UNIDO Monographs on Industrial Development, Industrialization of Developing Countries: Problems and Prospects, Monograph No. 4, Engineering Industry, New York, 1969, Table 4, pp. 22-23.
minimum profitable scale, they are unable to take advantage of the potential economies of scale obtainable in such industries. The result is that the unit costs of many LDC manufactures are high relative to world market prices. Such a condition makes import-substitution on a national basis a costly undertaking. Economic integration of contiguous LDC markets and the development of scale-oriented industries on a regional or sub-regional basis should make import-substitution both a more efficient and more extensive phenomena.

In the following subsection of the Appendix eight industries, of importance to the development of a large number of LDCs, are reviewed in light of the significance of economies of scale. They further indicate the potential benefits to be derived from economic integration between certain LDCs.

(J) The Nature and Significance of Economies of Scale in Selected Industries

(1) The Iron and Steel Industry: Economies of scale in the production of iron and steel are highly significant and persist up to the largest plants currently in operation. The ability to employ various production techniques, the efficiency of which depends on the level of output adopted, to reap significant equipment economies; to increase the extent of division of labour and specialization; and to employ automation to various extents; results in significant savings in both initial investment costs per ton of annual capacity and production costs per ton of output.

A study published by ECLA in 1966 revealed that as the level of installed capacity of an integrated steel plant rose from 100,000 tons per annum to 1,500,000 tons per annum, the total cost of producing pig iron, steel ingots, and flat rolled products fell from $55 per ton, $95 per ton, and $235 per ton to $40, $65, and $121 per ton respectively.

It has been estimated that the cost of producing steel ingots in Latin America in plants with an annual capacity of 500,000 tons and 250,000 tons, are 18% and 33% higher respectively than the unit cost of production in a plant of one million tons annual capacity. Currently there are no steel plants in Latin America with an annual capacity of one

million tons or more, though Argentina, Brazil, and Mexico each consume over a million tons of steel ingots per annum.

In order to determine the costs of producing a mixture of common steel products in steel plants of different capacity levels, ECLA has carried out a number of studies for the hypothetical construction and operation of steel plants of different capacity levels. The proportionate product mix was held as constant as technically possible, given the requirement of full capacity operation, while the optimum production techniques were employed for each capacity of plant. Some of the results on initial investment costs per unit of installed capacity, and on unit costs of production are presented in Tables 5 through 7.

It was found that the unit costs of production of both flat and non-flat products decline continuously as the scale of production is increased above the minimum level required for efficient production. Incremental savings in unit costs of production decline as the capacity of plant increases by uniform amounts. Thus, while integrated LDC steel industries may not be able to reap the full economies of scale, they may still reap the lion's share. Investment costs per ton of annual capacity varied in a similar manner.

(2) Chemical Industries: The chemical industries are generally subject to economies of scale over a wide range of plant capacities, as is illustrated by Table 8 below. Fixed investment is generally the most important source of economies of scale, though scale savings on unit production costs are frequently significant as is illustrated by Table 9 for the production of ammonia. Table 9 also illustrates the significant production costs involved in sub-capacity levels of operation. It should also be noted that the scale savings decrease in magnitude as the capacity of plant increases by equal increments, so that again integrated LDC plants may be able to reap most of the potential economies of scale. However, it should also be noted that both the absolute and relative costs of idle capacity are greatest for smaller capacity plants. Currently the only country in Latin America capable of absorbing the output of a million ton plant is Mexico.

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Annual Capacity of Plant in Thousands of tons of Finished Products</th>
<th>Decrease in Cost from 100,000-1,500,000 Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>Cost of ferrous material</td>
<td>120.71</td>
<td>92.58</td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>15.52</td>
<td>6.22</td>
</tr>
<tr>
<td>Other conversion cost</td>
<td>12.30</td>
<td>10.07</td>
</tr>
<tr>
<td>Total direct cost</td>
<td>148.53</td>
<td>109.47</td>
</tr>
<tr>
<td>Capital charges</td>
<td>43.46</td>
<td>29.70</td>
</tr>
<tr>
<td>Total cost</td>
<td>191.99</td>
<td>139.17</td>
</tr>
</tbody>
</table>


### TABLE 6

Investment and Production Costs and Target Selling Prices of Integrated Steel Plants Manufacturing Flat Products

<table>
<thead>
<tr>
<th>Annual capacity of finished steel (thousand tons)</th>
<th>Investment cost per ton annual capacity (dollars)</th>
<th>Production cost per ton (dollars)</th>
<th>Target selling price per ton (dollars)</th>
<th>Production cost and selling price index number</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>692</td>
<td>164</td>
<td>177</td>
<td>220</td>
</tr>
<tr>
<td>200</td>
<td>618</td>
<td>146</td>
<td>158</td>
<td>205</td>
</tr>
<tr>
<td>400</td>
<td>477</td>
<td>113</td>
<td>127</td>
<td>165</td>
</tr>
<tr>
<td>500</td>
<td>422</td>
<td>100</td>
<td>120</td>
<td>156</td>
</tr>
<tr>
<td>800</td>
<td>328</td>
<td>78</td>
<td>105</td>
<td>137</td>
</tr>
<tr>
<td>1,000</td>
<td>292</td>
<td>69</td>
<td>98</td>
<td>127</td>
</tr>
<tr>
<td>1,500</td>
<td>277</td>
<td>66</td>
<td>94</td>
<td>122</td>
</tr>
<tr>
<td>2,000</td>
<td>266</td>
<td>63</td>
<td>91</td>
<td>118</td>
</tr>
<tr>
<td>2,500</td>
<td>252</td>
<td>60</td>
<td>89</td>
<td>115</td>
</tr>
</tbody>
</table>

### TABLE 7

Investment and Production Costs and Target Selling Prices of Integrated Steel Plants Manufacturing Non-Flat Products

<table>
<thead>
<tr>
<th>Annual capacity of finished steel (thousand tons)</th>
<th>Investment cost per ton annual capacity (dollars)</th>
<th>Production cost per ton (dollars)</th>
<th>Target selling price per ton (dollars)</th>
<th>Production cost and selling price (index number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>471</td>
<td>178</td>
<td>205</td>
<td>267</td>
</tr>
<tr>
<td>50</td>
<td>375</td>
<td>142</td>
<td>156</td>
<td>203</td>
</tr>
<tr>
<td>100</td>
<td>318</td>
<td>120</td>
<td>126</td>
<td>164</td>
</tr>
<tr>
<td>200</td>
<td>264</td>
<td>100</td>
<td>105</td>
<td>137</td>
</tr>
<tr>
<td>300</td>
<td>228</td>
<td>80</td>
<td>94</td>
<td>122</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Reference scale C (tons per year)</th>
<th>Reference unit Investment I (dollars per ton annual capacity)</th>
<th>Exponent ( t )</th>
<th>Index or unit investment savings</th>
<th>Range subject to scale economies (tons per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>6,000</td>
<td>242</td>
<td>0.49</td>
<td>43</td>
<td>2,000-30,000</td>
</tr>
<tr>
<td>Calcium carbide</td>
<td>15,000</td>
<td>147</td>
<td>0.52</td>
<td>41</td>
<td>5,000-60,000</td>
</tr>
<tr>
<td>Polyvinyl chloride</td>
<td>6,000</td>
<td>285</td>
<td>0.56</td>
<td>38</td>
<td>2,500-40,000</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>15,000</td>
<td>34</td>
<td>0.56</td>
<td>38</td>
<td>5,000-100,000</td>
</tr>
<tr>
<td>Butadiene</td>
<td>10,000</td>
<td>600</td>
<td>0.56</td>
<td>38</td>
<td>5,000-60,000</td>
</tr>
<tr>
<td>Acetylene carbide</td>
<td>4,880</td>
<td>71</td>
<td>0.59</td>
<td>37</td>
<td>2,000-20,000</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>20,000</td>
<td>100</td>
<td>0.59</td>
<td>37</td>
<td>10,000-60,000</td>
</tr>
<tr>
<td>Carbon black</td>
<td>10,000</td>
<td>300</td>
<td>0.59</td>
<td>37</td>
<td>4,000-30,000</td>
</tr>
<tr>
<td>Ethylene</td>
<td>10,000</td>
<td>570</td>
<td>0.61</td>
<td>35</td>
<td>10,000-60,000</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>5,000</td>
<td>1,200</td>
<td>0.62</td>
<td>34</td>
<td>4,000-30,000</td>
</tr>
<tr>
<td>Urea</td>
<td>33,000</td>
<td>85</td>
<td>0.65</td>
<td>31</td>
<td>10,000-105,000</td>
</tr>
<tr>
<td>Acetylene (from natural gas)</td>
<td>13,600</td>
<td>465</td>
<td>0.68</td>
<td>30</td>
<td>10,000-45,000</td>
</tr>
<tr>
<td>Styrene</td>
<td>10,000</td>
<td>280</td>
<td>0.76</td>
<td>23</td>
<td>5,000-50,000</td>
</tr>
<tr>
<td>Polyethylene (low density)</td>
<td>8,130</td>
<td>492</td>
<td>0.77</td>
<td>22</td>
<td>6,000-12,000</td>
</tr>
<tr>
<td>Methanol</td>
<td>10,000</td>
<td>444</td>
<td>0.77</td>
<td>22</td>
<td>5,000-60,000</td>
</tr>
<tr>
<td>Chlorine (and sodium hydroxide)</td>
<td>16,500</td>
<td>340</td>
<td>0.77</td>
<td>22</td>
<td>6,000-35,000</td>
</tr>
<tr>
<td>Ammonia</td>
<td>36,000</td>
<td>139</td>
<td>0.77</td>
<td>22</td>
<td>18,000-180,000</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>36,000</td>
<td>18</td>
<td>0.83</td>
<td>17</td>
<td>10,000-100,000</td>
</tr>
</tbody>
</table>

Source: Industrialization and Productivity, Bulletin 10, p.55. a Equal to

where: \( t \) = unit investment corresponding to capacity \( 3 \times 0 \)
### TABLE 9

Ammonia Production Costs

<table>
<thead>
<tr>
<th>Daily Plant Capacity</th>
<th>Cost at 50 percent capacity level of operation</th>
<th>Cost at 100 percent capacity level of operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 tons/1000 t/day</td>
<td>$85 per ton</td>
<td>$50 per ton</td>
</tr>
<tr>
<td>300 &quot;</td>
<td>$68 &quot;</td>
<td>$42 &quot;</td>
</tr>
<tr>
<td>600 &quot;</td>
<td>$50 &quot;</td>
<td>$27 &quot;</td>
</tr>
<tr>
<td>1,000 &quot;</td>
<td>$38 &quot;</td>
<td>$24 &quot;</td>
</tr>
<tr>
<td>1,500 &quot;</td>
<td>$30 &quot;</td>
<td>$22 &quot;</td>
</tr>
</tbody>
</table>


### (3) Oil Refining: Significant economies of scale may be reaped in the refining of oil.

The majority of scale savings occur in certain sub-processes of the overall refining process. Table 10 below contains estimated scale coefficients, of the previously mentioned b form, for several processes of oil refining, and for the entire refining process. Even when account is made for certain ex-refinery diseconomies, such as in shipping, storage, and various "green field" overheads, the industry economies

### TABLE 10

Oil Refining Scale Coefficients

<table>
<thead>
<tr>
<th>Refinery Process</th>
<th>Value of b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete refinery, including catalytic cracking</td>
<td>.75</td>
</tr>
<tr>
<td>Catalytic cracking, topping, feed preparation, gas recovery, polymerization</td>
<td>.88</td>
</tr>
<tr>
<td>Topping and thermal cracking</td>
<td>.80</td>
</tr>
<tr>
<td>Catalytic cracking</td>
<td>.81</td>
</tr>
<tr>
<td>Thermal cracking</td>
<td>.62</td>
</tr>
<tr>
<td>Natural gasoline</td>
<td>.51</td>
</tr>
</tbody>
</table>

of scale are still significant. The extent of possible scale economies in oil refining is illustrated by the results of C.F. Prattens Study of the British oil refining industry which are given in Table 11 below. Recent technological achievements in oil refining have significantly increased the extent of possible economies of scale, particularly for refineries of the very largest capacities.

TABLE 11

Scale Economies in Oil Refining

<table>
<thead>
<tr>
<th>Crude Refinery Capacity (million tons)</th>
<th>Estimated Refinery Costs per ton (INDICES OF COST)</th>
<th>Estimated Ex-Refinery Costs per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
<td>92</td>
</tr>
<tr>
<td>5</td>
<td>56</td>
<td>86</td>
</tr>
<tr>
<td>10</td>
<td>44</td>
<td>82</td>
</tr>
<tr>
<td>20</td>
<td>40</td>
<td>81</td>
</tr>
</tbody>
</table>

NOTE: Refining costs include works fuel. It was assumed that there are no economies of scale for fuel and crude oil (included in ex-refining costs)

Source: C.F. Pratten, Economies of Scale in Manufacturing Industry, op.cit., taken in part from Table 42, p.35

(4) Synthetic Fibres: The production of synthetic fibres (polyamides, polyester, and acrilies) involves three basic processes; (i) the production of the basic chemical required, (ii) the production of a polymer, and (iii) the extrusion of the polymer. Economies of scale can be achieved in all three processes, but are particularly important in the production of the basic chemicals. Table 12 below illustrates the economies of scale reaped in the British synthetic fibre industry. It should be noted that once again the proportionate cost savings decline for successive incrementally larger capacity plants. Many industries which employ chemical processes as a major part of the production process reap economies of scale, for instance the production of numerous fertilizers, pesticides, and plastics.
TABLE 12

Average Production Costs for Nylon 6 and Acrylic Filament Yarn

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>4</th>
<th>20</th>
<th>40</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Index numbers of Average Cost)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>materials</td>
<td>180</td>
<td>100</td>
<td>75</td>
<td>65</td>
</tr>
<tr>
<td>polymerization</td>
<td>140</td>
<td>100</td>
<td>80</td>
<td>65</td>
</tr>
<tr>
<td>extrusion</td>
<td>112</td>
<td>100</td>
<td>89</td>
<td>87</td>
</tr>
<tr>
<td>total production</td>
<td>132</td>
<td>100</td>
<td>83</td>
<td>79</td>
</tr>
</tbody>
</table>


(5) Alumina Production: An early study of the production of alumina by the combination Bayer process estimated the scale coefficient for total plant and equipment to be .95. Table 13 below illustrates the economies of scale achievable in production costs. Such savings may be significant in the development of an aluminum industry on an integrated basis. Such a development is currently underway in the Regional Cooperation for Development (RCD).

TABLE 13

Alumina Production Costs

<table>
<thead>
<tr>
<th>Daily Output</th>
<th>Operating Cost</th>
<th>Cost Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 tons</td>
<td>$32.43 per ton</td>
<td>100</td>
</tr>
<tr>
<td>500 &quot;</td>
<td>$29.63 &quot;</td>
<td>91</td>
</tr>
<tr>
<td>1,000 &quot;</td>
<td>$27.28 &quot;</td>
<td>84</td>
</tr>
</tbody>
</table>

(6) Pulp and Paper Mills: Significant economies of scale may be reaped in the production of pulp and paper products. A recent United Nations study revealed that the optimum scale of production for a pulp and paper mill in Latin America is 200 tons per day. Currently most mills in Latin America have a daily output capacity of fifty tons or less, the consequence of which is high unit production costs as illustrated by Table 14.

<table>
<thead>
<tr>
<th>Daily Production Capacity</th>
<th>Average Production Cost Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 tons</td>
<td>167</td>
</tr>
<tr>
<td>100 tons</td>
<td>125</td>
</tr>
<tr>
<td>200 tons</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Cited by B. Balassa; "Regional Integration and Trade Liberalization in Latin America", op. cit., pp. 68-71.

(7) Cement Production: The major sources of scale savings in cement production are in labour, fixed capital, and overhead costs. The development of steadily increasing maximum capacity kiln sizes over the last decade, from 150,000 tons to a million tons, has made possible significant scale economies.

Table 15 reveals the estimated production cost of cement in Asian plants ranging in annual capacity from 50,000 to 900,000 tons. The potential cost reduction of almost forty percent which is achievable through production on a grand scale makes integrated or joint cement production a worthwhile consideration.

1 See source Table 14.
### TABLE 15

**Economies of Scale in Cement Production**

<table>
<thead>
<tr>
<th>Capacity of Plant in Thousand Tons</th>
<th>Decrease in Cost from Capacity of 50,000-900,000 Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 100 230 450 900</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>U.S. dollars</th>
<th>U.S. dollars' cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating cost per ton</td>
<td>15.5 15.2 14.7 11.0 9.4 6.1 39.4</td>
<td></td>
</tr>
<tr>
<td>Capital charges per ton</td>
<td>11.5 10.8 10.0 8.8 7.0 4.5 39.1</td>
<td></td>
</tr>
<tr>
<td>Total cost/ton</td>
<td>27.0 26.0 24.7 19.8 16.4 10.6 39.3</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Data from United Nations, *Formulating Industrial Development with Special Reference to Asia and the Far East* (Bangkok, 1961), p.46.

Source: C. Nguyen Tien Hung, "Economies of Scale and Economic Integration", op.cit., Table 2, p. 39.

(8) **Hydroelectric Power Generation**: The generation of hydroelectric energy on a large scale yields significant economies in production costs per kwh. Even more significant are the economies of scale in fixed investment per kilowatt of installed capacity. Table 16 below indicates the possible extent of investment economies in large capacity installations in Central Africa.
TABLE 16

Estimate of Cost per Kilowatt Installed in the Inga Hydro Electric Project, Democratic Republic of Congo

<table>
<thead>
<tr>
<th>Capacity in Megawatts</th>
<th>Decrease in Cost from 100 to 300 Megawatts</th>
<th>U.S. Dollars per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cost per kilowatt installed

| 500 | 370 | 300 | 250 | 250 | 50 |

Source: Table 4 in G. Nguyen Tien Hung's "Economies of Scale and Economic Integration", op. cit., p. 40.

(K) Economies of Scale and Economic Integration in Latin America: In a study of economies of scale achievable by the establishment of industries on the basis of integrated Latin American markets, rather than on the basis of national markets, Martin Carnoy estimated cost savings of 10-15% in the production of nitrogenous fertilizers, tractors, powdered milk, and cheese.1 Cost savings of 15-20% were estimated for the production of methanol, formaldehyde, leather, and pulp and paper on an integrated market basis. For most of these industries production costs would be below import prices.

Many Latin American industries have been developed on an inefficient scale behind tariff walls. A good illustration of this is the automobile industry. Jack Baronson has shown that in 1967 the excess cost of domestic car production in Brazil would rise from 6 to 71% if the industry expanded from car assembly to the domestic production of 90% by value of the car.2 Yet Brazil has required car producers to raise the domestic content of automobiles manufactured in Brazil to 90% of the value of the car.


2Ibid.
In 1967 sixty-seven firms in eight countries of Latin America produced 652,000 vehicles in over 200 basic models. By American standards an efficient auto plant of economical size would produce 240,000 automobiles a year of one basic type. While it is realized that the minimum scale for efficient production varies between countries, the fact that most Latin American producers operate on an inefficient basis is difficult to escape.

Norway, with five times as many passenger cars as Chile, does not produce complete cars, but rather specializes in the production of car parts, accessories, and components for export. Chile, on the other hand, is pursuing a program of progressively increasing the required percentage of domestic value-added in its automobile industry.

Production on a small scale basis results in high unit costs of production. The production costs of light trucks illustrates this. Using U.S. production costs as an index base, the cost of producing light trucks in 1967 was 158 in Mexico, 180 in Brazil, and 245 in Argentina.

It would be much more efficient to rationalize the Latin American auto industry on the basis of an integrated market. Specialization along vertical and horizontal lines, combined with the use of standardized and, or common components produced by specialist plants, could lead to significant cost reductions. This type of integrated production and exchange, if properly established, could prove beneficial to all eight auto-producing LDCs.

This type of integration with agreed production specialization by various member-states could be extended to a variety of industries characterized by capital lumpiness and significant economies of scale.

(L) Conclusion: It should be clear by now that economies of scale are an important phenomena in a large number of industries. Production specialization and trade on the basis of integrated markets is one way in which LDCs can achieve economies of scale, not only in existing industries, but also in industries which are beyond the means of national markets alone. This is one of the major economic benefits sought through integration between LDCs.

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1Cited from Baronson's article in Finance and Development, VOL. 5, Dec.1968, p.27.
Appendix II - GATT and Economic Integration

Article XXIV of GATT permits the formation of free-trade areas, customs unions, and transitional forms between signatory states, given that the stipulations embodied in the Article are satisfied. This Article is reproduced in full below. However, before proceeding to its certain comments on GATT's position should be made.

GATT requires that the signatory states forming a customs union adopt duties and other trade restraints which are no higher or more restrictive on the whole than the general incidence of pre-integration restrictions on external trade (para. 5(a)). Yet the eventual tariff levels adopted by the EEC and the CACM were both higher than their pre-integration levels, a situation which GATT accepted.

GATT also requires that any signatory states contemplating economic integration provide a plan and schedule (timetable) for the formation of the union which is acceptable to the GATT membership (para. 5(c) and 7(b)). This requirement may be particularly demanding for some LDC integration movements where the type and magnitude of transitional problems are difficult to predict. In the case of LAFTA resort to escape clauses by the member-states, a slowdown in the granting of tariff concessions, and growing reciprocity disputes made it impossible for the member-states to meet the 1973 deadline. A new deadline of 1980 was established for free trade in most products. Were such deadlines to be rigidly observed it would mean that any trade liberation slowdowns aimed at easing transition problems would create further transition problems towards the end of the planned period due to the need to accelerate the rate of trade liberation in order to meet the deadline. GATT allows changes in such integration schedules, given that the GATT membership approves (para. 7(c)), yet stresses the importance of the initial schedule as if it were a means of ensuring that an initial integration movement did not deteriorate into a system of selective trade preferences in particular commodities. Finally, GATT seems to favour relatively short transition periods rather than a gradual step by step approach to the problem. For integration between LDCs the latter may be more appropriate.

In principle GATT only supports comprehensive integration (para. 8), thus effectively ruling out "sectoral trade liberation integration", a form which is probably both more manageable and desirable to a number of LDCs. However, the rigidity with which GATT holds to this position is questionable. We may assume that GATT accepted the ECSC on the understanding that it was a forerunner of more extensive integration between the participant states, i.e., the EEC. However, the wide...
exemptions of agricultural products from free inter-member trade in the EEC, EFTA, and particularly in LAFTA is not so readily explainable. GATT permitted it, even when in LAFTA inter-member trade was predominantly in agricultural products. In the LAFTA case the preferential treatment of industrial trade, i.e., trade in the products of a high priority sector, seem to conflict notably with GATT conditions. Yet GATT approved the Treaty of Montevideo. The current plans between EFTA and the EEC to achieve free trade in industrial products between the residual EFTA states and the Nine by 1977 appears to be notably in conflict with the requirements of Article XXIV, yet it is doubtful that GATT will object.

The increasing number of exceptions that have been made to Article XXIV raise doubts as to its usefulness. GATT may become willing to permit integration between LDCs on large sectoral bases, particularly if the integrated European members of GATT favour such moves. Finally, if GATT succumbs to LDC demands for the right to extend one another trade preferences, then Article XXIV's prohibition on sectoral integration may be eliminated.
A. Article XXIV of GATT

Territorial Application - Frontier Traffic - Customs Unions and Free-trade Areas

1. The provisions of this Agreement shall apply to the metropolitan customs territories of the contracting parties and to any other customs territories in respect of which this Agreement has been accepted under Article XXVI or is being applied under Article XXXIII or pursuant to the Protocol of Provisional Applications. Each such customs territory shall, exclusively for the purposes of the territorial application of this Agreement, be treated as though it were a contracting party; Provided that the provisions of this paragraph shall not be construed to create any rights or obligations as between two or more customs territories in respect of which this Agreement has been accepted under Article XXVI or is being applied under Article XXXIII or pursuant to the Protocol of Provisional Application by a single contracting party.

2. For the purposes of this Agreement a customs territory shall be understood to mean any territory with respect to which separate tariffs or other regulations of commerce are maintained for a substantial part of the trade of such territory with other territories.

3. The provisions of this Agreement shall not be construed to prevent:

   (a) advantages accorded by any contracting party to adjacent countries in order to facilitate frontier traffic;

   (b) advantages accorded to the trade with the Free Territory of Trieste by countries contiguous to that territory, provided that such advantages are not in conflict with the Treaties of Peace arising out the Second World War.

4. The contracting parties recognize the desirability of increasing freedom of trade by the development, through voluntary agreements, of closer integration between the economies of the countries parties to such agreements. They also recognize that the purpose of a customs union or of a free-trade area should be to facilitate trade between the constituent territories and not to raise barriers to the trade of other contracting parties with such territories.

5. Accordingly, the provisions of this Agreement shall not prevent, as between the territories of contracting parties, the formation of a customs union or of a free-trade area or the adoption of an interim agreement necessary for
the formation of a customs union or of a free-trade area;

Provided that:

(a) with respect to a customs union, or an interim agreement leading to the formation of a customs union, the duties and other regulations of commerce imposed at the institution of any such union or interim agreement in respect of trade with contracting parties not parties to such union or agreement shall not on the whole be higher or more restrictive than the general incidence of the duties and regulations of commerce applicable in the constituent territories prior to the formation of such union or the adoption of such interim agreement, as the case may be;

(b) with respect to a free-trade area, or an interim agreement leading to the formation of a free-trade area, the duties and other regulations of commerce maintained in each of the constituent territories and applicable at the formation of such free-trade area or the adoption of such interim agreement to the trade of contracting parties not included in such area or not parties to such agreement shall not be higher or more restrictive than the corresponding duties and other regulations of commerce existing in the same constituent territories prior to the formation of the free-trade area, or interim agreement, as the case may be; and

(c) any interim agreement referred to in sub-paragraphs (a) and (b) shall include a plan and schedule for the formation of such a customs union or of such a free-trade area within a reasonable length of time.

6. If, in fulfilling the requirements of sub-paragraph 5(a), a contracting party proposes to increase any rate of duty inconsistently with the provisions of Article II, the procedure set forth in Article XXVIII shall apply. In providing for the compensatory adjustment, due account shall be taken of the compensation already afforded by the reductions brought about in the corresponding duty of the other constituents of the union.

7. (a) Any contracting party deciding to enter into a customs free-trade area, or an interim agreement leading to the formation of such a union or area, shall promptly notify the CONTRACTING PARTIES and shall make available to them such information regarding the proposed union or area as will enable them to make such reports and recommendations to contracting parties as they may deem appropriate.
(b) If, after having studied the plan and schedule included in an interim agreement referred to in paragraph 5 in consultation with the parties to that agreement and taking due account of the information made available in accordance with the provisions of sub-paragraph (a), the CONTRACTING PARTIES find that such agreement is not likely to result in the formation of a customs union or of a free-trade area within the period contemplated by the parties to the agreement or that such period is not a reasonable one, the CONTRACTING PARTIES shall make recommendations to the parties of the agreement. The parties shall not maintain or put into force, as the case may be, such agreement if they are not prepared to modify it in accordance with these recommendations.

(c) Any substantial change in the plan or schedule referred to in paragraph 5(c) shall be communicated to the CONTRACTING PARTIES, which may request the contracting parties concerned to consult with them if the change seems likely to jeopardize or delay unduly the formation of the customs union or of the free-trade area.

8. For the purposes of this Agreement:

(a) A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that

(i) duties and other restrictive regulations of commerce (except where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and,

(ii) subject to the provisions of paragraph 9, substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union;

(b) A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV, and XX) are eliminated on substantially-all the trade between the constituent territories in products originating in such territories.
9. The preferences referred to in paragraph 2 of Article I shall not be affected by the formation of a customs union or of a free-trade area but may be eliminated or adjusted by means of negotiations with contracting parties affected. This procedure of negotiations with affected contracting parties shall, in particular, apply to the elimination of preferences required to conform with the provisions of paragraph 8 (a) (i) and paragraph 8 (b).

10. The CONTRACTING PARTIES may by a two-thirds majority approve proposals which do not fully comply with the requirements of paragraphs 5 to 9 inclusive, provided that such proposals lead to the formation of a customs union or a free-trade area in the sense of this Article.

11. Taking into account the exceptional circumstances arising out of the establishment of India and Pakistan as independent States and recognizing the fact that they have long constituted an economic unit, the contracting parties agree that the provisions of this Agreement shall not prevent the two countries from entering into special arrangements with respect to the trade between them, pending the establishment of their mutual trade relations on a definite basis.

12. Each contracting party shall take such reasonable measures as may be available to it to ensure observance of the provisions of this Agreement by the regional and local governments and authorities within its territory.
Selected Bibliography

Theoretical and General Writings on Economic Integration


Economic Integration and Africa


Economic Integration and the Americas


Economic Integration and Asia and the Far East


Economic Integration and Europe


Miscellaneous Works


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- Monograph NO.4, Engineering Industry.
- Monograph NO.8, Chemical Industry.
- Monograph NO.18, Regional Cooperation in Industry.


Curriculum Vitae

Birthplace and Date of Birth

- Born August 24th, 1948, in Ashgate, United Kingdom of Great Britain, son of Mr. and Mrs. C.A. Clayton.

Education

- B.A. (Hon. Economics), University of Windsor, 1972.

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- Researcher, Ontario Department of Lands and Forests, Tilbury, Summer 1971.
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