Integration and Economic Development

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INTEGRATION AND ECONOMIC DEVELOPMENT

BY ROBERT L. BIRMINGHAM*

IN THIS PAPER I shall attempt to evaluate the potential impact of economic association among underdeveloped countries. Attention is centered on gain achievable by participating states as a group: world welfare alteration appears devoid of normative implication to the national decision maker, while questions of internal distribution of union benefit are too complex for summary treatment. Conclusions of amalgamation efficacy rest jointly on abstract analysis and deduction from empirical economic parameters; discussion of trade and development theory is extended beyond that logically necessary for argument coherence to provide a brief introduction to relevant recent thought.

I. Development Opportunities

A. International Inequalities

A pressing international problem is the great disparity between real incomes in the North Atlantic Community and those in the less developed lands of Latin America, Africa, and Asia. In 1962 per capita gross domestic product unadjusted for inequalities in purchasing power averaged $2,975 dollars in the United States, but only 145 dollars in the poorer market economies comprising two-thirds of the population of the free world.¹


Professor Detlev F. Vagts of the Harvard Law School has been of great help to me in the preparation of this paper. I am also indebted to Professor Gottfried Haberler and Dr. Lawrence Officer of Harvard University. Errors are my own.

¹U.S. Agency for International Development, Selected Economic Data for the Less Developed Countries, May 1964, p. 8 (Table 1). Other comparisons are equally revealing:

<table>
<thead>
<tr>
<th>Backward Regions (Free World)</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power per capita (kilowatt hours per year)</td>
<td>5050</td>
</tr>
<tr>
<td>Miles of improved roads (per 1000 square miles)</td>
<td>1010</td>
</tr>
<tr>
<td>Literacy (per cent)</td>
<td>98</td>
</tr>
<tr>
<td>Life expectancy (years)</td>
<td>70</td>
</tr>
<tr>
<td>Daily caloric intake (per capita)</td>
<td>3220</td>
</tr>
<tr>
<td>People-per physician</td>
<td>740</td>
</tr>
</tbody>
</table>


781
"When... the national income in the United States increases by the modest figure of 2 1/2 percent in a year, the average increase in income for each man, woman, and child is just about equal to the total annual income of the average citizen of India." 2 While income indices are by no means comprehensive measures of intercivilization welfare differentials, 3 widespread adoption of materialistic western ideologies has diminished the importance attached to the traditional value structures of non-European cultures.

Wealth disparity made manifest by increasing international contact represents a potent source of political tension. The abortive United Nations Conference on Trade and Development, held in Geneva in the spring of 1964, is best interpreted as a protest by the backward nations against their plight. In a joint declaration at the conclusion of negotiations, the poorer participants proclaimed: "The developing countries regard their own unity, the unity of the seventy-five, as the outstanding feature of this Conference. . . . The injustice and neglect of centuries need to be redressed. The developing countries are united in their resolve to continue the quest for such redress . . . ." 4 A South American businessman has asserted: "You


Income estimates are hardly reliable. For difficulties of calculation see Kuznets, Quantitative Aspects of the Economic Growth of Nations, 5 Econ. Development & Cultural Change 1 (1956). In particular, bias is introduced because indices of traded goods are generally used to compare price levels, and price differentials are greatest among nontraded items. See Balassa, The Purchasing-Power Parity Doctrine: A Reappraisal, 72 J. Pol. Econ. 584 (1964).


3 "Progress is a much oversimplified notion. Only in the narrow area of material control and production are the West and the non-Western world properly conceived of as "more developed" and "less developed"—and only then by making an unrealistic abstraction of material wealth from the culture and society in which it subsists. In every other respect the West and the societies of the non-Western world are not more or less advanced on a single road. They are, and have been, proceeding in quite different directions of development. They are, and have been, advancing toward quite different human destinations. Only a Westerner obsessed with the universal validity of his own values is compelled to look upon the hypersubtle Arab East, say, as "less developed," and he does so not by consideration of its intentions and the native accomplishments of its civilization, the intensity and subtlety of its life, but by assuming that whatever the rest of the world's aberrations and hesitations, that world is necessarily fated to conform to Western norms."


4 1 U.N. Conference on Trade and Development, Final Act and Report, Annex
have inundated our market with consumer goods and you have not invested enough to create national industries here. You arouse our discontent by putting pretty things in our windows. Now we look to you to satisfy the needs that all people have a right to. When we see Americans with two cars we... want two.”

Myrdal argues: “Without a radical change in policy... the world is headed for an economic and political cataclysm.”

Wealth differentials can be satisfactorily reduced only by maintenance of rapid rates of growth in underdeveloped regions. Between 1950 and 1960, however, output per person in these areas increased only 2.2 per cent per year, less than in the advanced economies. Although during this period gross domestic product in the poorer nations grew 4.4 per cent per year, 20 per cent faster than in industrialized lands, population expansion at a 2.2 per cent annual rate dissipated the advantage. As Myrdal notes, “The...
income gap between the rich and the poor countries has . . . been increasing and not decreasing, not only absolutely but relatively.”  

Seers argues that “Marx’s prophecy of the impoverishment of the poor may be fulfilled on the international plane.” Extrapolation of environmental parameters suggests that if the underdeveloped market economies continue internal policies of the recent past they will by 1970 be unable to maintain even the modest 1950-1960 pace of output expansion without roughly 10 billion dollars of capital inflow annually from their more wealthy neighbors. Raising growth rates a single percentage point would almost double external assistance requirements. Aspirations nevertheless remain high:

“Sheik Abeid Karume, the first Vice-President of the Republic of Tanganyika and Zanzibar, on June 6, 1964, promised the 320,000 people of Zanzibar that they ‘would all be earning £450 by 1966,’ an income £25 greater than the 1962 U.K. average. This remarkable objective is to be achieved by a three-year Zanzibar development plan prepared by the revolutionary government of Zanzibar. When I questioned an important figure in the revolutionary government about the feasibility of this promise, he replied, ‘If the Government says it will happen, it will,’ and eagerly dropped the subject. The Chinese People’s Republic has already promised Zanzibar an interest-free loan of £5 million, but this is, unfortunately, only about 1 per cent of the investment required to reach the promised per capita income level.”

Oil export has thus far provided the only mechanism permitting rapid accumulation of wealth by non-Western societies. A World Bank survey reports: “Kuwait has reached the level of affluence where purely economic improvement, in the form of a higher per capita income for her people, need not be an overriding objective of national policy.” Two decades ago Kuwait was a sparsely populated 6,000-square-mile wasteland at the northeast corner of the Persian Gulf. Per capita income was but 35 dollars; public revenues totaled only 290,000 dollars. Today annual imports of luxury goods amount to almost 300,000,000 dollars, or roughly 825 dollars for each of its 350,000 inhabitants. The cost of salaries of public officials is about 1,120 dollars per citizen. Each tree and bush along the streets requires 250 dollars per year in maintenance expenditures. The Kuwait Fund for the

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8 Myrdal, supra note 6, at 3, 11.
9 Seers, A Model of Comparative Rates of Growth in the World Economy, 72 Econ. J. 45, 75 (1962).
Economic Development of the Arab Countries has capital resources of 840,000,000 dollars. Yet the unskilled laborer earns only 1.5 dollars per day. The 1957 census revealed an indigenous labor force of almost 24,000, of which over 19,000 had at best rudimentary training. Most of the remainder were designated "professionals and technologists," although they included only one chemist, one geologist, two doctors, two author-journalists, and eight accountants. Also in this category were 156 "clergymen." 18

B. Constraints Limiting Development Velocity

In pioneering studies of economic growth in the decade following the Second World War, attention was focused on the Harrod-Domar model, in which the assumption of fixed factor proportions dictated that given a plentiful labor supply and an invariant capital-output ratio, production would be directly proportional to the quantity of capital available.14 Stimulation of increases in investment levels became the planner's primary goal: "In the literature on economic development and in public statements by leaders of underdeveloped countries, emphasis is always placed on the need for more and more capital." 15

The introduction of the more realistic neo-classical model permitting substitution between capital and labor inputs demonstrated that such emphasis on a single variable was misplaced.16 Extensions of this analysis have
illustrated the possibility that long-term consumption levels may be negatively influenced by policies encouraging a continuing massive investment effort. Over an indefinite time interval greatest possible total consumption will result if capital expansion is limited to the rate of profit; a steady investment flow exceeding this amount will boost the capital-output ratio to such an extent that the resulting rise in future income will be less than the increase in saving necessary to maintain the selected rate of growth of production. Once a certain level of development is attained, technical progress replaces capital accumulation as the major factor inducing advance in per capita income.\(^\text{17}\)

Recent work has stressed social aspects of development: "Kapitalbildung [ist] nicht Impuls, sondern Erscheinung des Wachstums . . . . Tiefer gefasst muss . . . alle wirtschaftliche Entwicklung auf den primären Faktor schlechthin zurückgeführt werden: auf \textit{menschliche Leistungen}."\(^\text{18}\) Traditional cul-

\(^{17}\) If \(Y, C, I, \) and \(K\) represent income, consumption, investment, and capital stock respectively, we may write:

\[
C = Y - I = Y - dK.
\]

It follows that

\[
C = Y - \frac{K}{K} dK.
\]

If \(W_k\) represents \(\frac{dK}{K}\), the rate of capital accumulation,

\[
C = Y - W_k K.
\]

Differentiating with respect to \(K\) and setting the result equal to 0 we obtain:

\[
\frac{\partial C}{\partial K} = \frac{\partial Y}{\partial K} - W_k = 0
\]

or

\[
W_k = \frac{\partial Y}{\partial K}.
\]

male Investitionsquote} (1962); Bombach, \textit{Optimales Wachstum und Gleichgewichts-
wachstum}, in Henn, Bombach & Boventer, \textit{Optimales Wachstum und Optimale Standortverteilung} 47 (1962); Krelle, \textit{Investition und Wachstum}, 176 \textit{Jahrbücher für Nationalökonomie und Statistik} 1 (1964); Richter, \textit{"Harrod-Wachstum" und "Solow-
Wachstum"}, \textit{ein Vergleich}, 121 \textit{Zeitschrift für die gesamte Staatswissenschaft} 235 (1965). See also Samuelson, \textit{A Catenary Turnpike Theorem Involving Consumption and the Golden Rule}, 55 \textit{Am. Econ. Rev.} 486 (1965). But see Sato, \textit{Fiscal Policy in a Neo-

\(^{18}\) Paulson, \textit{Sachkapital und Human Capital in der wirtschaftlichen Entwicklung}, 120 \textit{Zeitschrift für die gesamte Staatswissenschaft} 577, 588 (1964). (Emphasis in original.) "While investment of capital is undoubtedly necessary for economic growth, it is certainly not the controlling or predominant factor. Economists are not yet in a position to analyse this matter fully, but we can say that the principal factors in economic growth are not physical—natural resources and invested capital—but human." Clark, \textit{supra} note 15, at 2. See Boon, \textit{Economic Choice of Human and Physical Factors in Production} (1964).
tural patterns generated in periods of economic stagnation frequently prove incompatible with the dynamic acquisitiveness necessary to material progress.\textsuperscript{19} Capital equipment is of little value unless complemented by a skilled labor force:

"Among the preconditions of industrialization, therefore, I believe that the major difficulty lies in the absence of a population with sufficient experience in the use of money and credit and with inadequate skill on a large scale to manage or operate industrial enterprise. What this means is that the pace of industrialization is inexorably linked to the pace of adult training and education and the fostering of migration to the nation involved of persons already trained and capable of training others.

"Everything else can be resolved by appropriate legal structures, but the problems of training and education cannot be resolved by fiat."\textsuperscript{20}

In Africa "in 1960 less than 1 percent of the population had received a secondary education and less than 10 percent primary education."\textsuperscript{21}

In general, growth speed can be restricted either by limited export earnings or by low domestic saving ratios: an industrializing state is de-

\textsuperscript{19} "The widespread personal and social habits, attitudes and customs of large sectors of the Indian population—the caste system, the veneration of the cow, the reluctance to slaughter animals, the contemplative, uncurious and fatalistic outlook—have contributed in large measure to her backwardness, and unless they are modified or abandoned, capital investment cannot hope to be as productive of output and incomes as in western countries." Clark, \textit{supra} note 15, at 5. See \textsc{Hagen, On the Theory of Social Change: How Economic Growth Begins} (1962); \textsc{McClelland, The Achieving Society} (1961); \textsc{Morgan, The Achievement Motive and Economic Behavior, 12 Econ. Development \& Cultural Change} 243 (1964); Nash, \textit{Social Prerequisites to Economic Growth in Latin America and Southeast Asia}, 12 \textsc{Econ. Development \& Cultural Change} 225 (1964); \textsc{Reynaud, Wirtschaftspsychologie und Entwicklungsforschung, 91 Weltwirtschaftliches Archiv} 231 (1963); Schatz, \textit{n Achievement and Economic Growth: A Critique, 79 Q.J. Econ.} 234 (1965); \textsc{McClelland, Reply, id. at 242; Schatz, Rejoinder, id. at 246. But see Hill, Growth and Investment According to International Comparisons, 74 Econ. J. 288 (1964).}

\textsuperscript{20} \textsc{Mentschikoff, Federalism and Economic Growth, in Federalism and the New Nations of Africa} 191, 196, 199 (Currie ed. 1964). Up to 40\% of American national income growth between 1929 and 1956 has been attributed to investment in education. For a review of such estimates see \textsc{Bowman, Schultz, Denison, and the Contribution of "Eds" to National Income Growth, 72 J. Pol. Econ.} 450 (1964). See also \textit{Symposium: Investment in Human Beings, 70 J. Pol. Econ.} 1-157 (Supp. 1962). "[T]he rate of return on investment in 'human capital,' however measured, may be at least as large as that on physical capital. . . . I am tempted to conclude: If I was given the economic dictatorship of a country, charged with the task of ensuring a maximum rate of growth, I would be prepared to risk my posthumous fame by betting heavily on education and research—under the motto: 'Mind over machine.'" \textsc{Aukrust, Factors of Economic Development: A Review of Recent Research, 93 Weltwirtschaftliches Archiv} 23, 41 (1964). (Footnote omitted.)

dependent upon importation of foreign capital equipment to provide a foundation for a manufacturing sector; a poor nation must use a very high proportion of what income it is able to generate to furnish its people with the basic necessities of life.\textsuperscript{22} Albeit with some inconvenience, other purportedly independent constraints can frequently be incorporated into one of these dichotomous categories: a deficiency in worker skill, for example, must be remedied through import of trained labor or investment in human capital requiring saving undifferentiated from that needed to expand the stock of producer goods. Admittedly many social aspects of the revolution inherent in the process of industrialization can hardly be usefully delineated in quantitative terms; for purposes of initial orientation, nevertheless, it is convenient to abstract from distortions and discontinuities produced by institutional rigidities.

This posited bifurcation is itself not unobjectionable, although if applied as a tool of analysis the assertion that “the two approaches are complementary rather than competitive and, under proper definitions, they should give identical results” \textsuperscript{23} misleadingly exaggerates their interrelationship. A proportion of export gains will be saved; and it is frequently possible partially to compensate for unavailability of needed foreign capital goods through increased levels of domestic investment, even though substitution

\textsuperscript{22} “The ease with which people can procure food, the primary necessity, determines the amount of labor and other resources that they can devote to industry and culture. A population that must devote 95 percent of its resources to feeding itself will have fewer allocable resources for other pursuits than will one of equal size that must devote only 90 percent to procuring necessities. The latter society can grow twice as fast at the outset, and the resulting capital accumulation will constantly raise the proportion of resources which it can use for further development. After a time, therefore, the two populations will occupy entirely different economic and cultural levels. When one considers that many societies today spend practically their total resources is securing the barest necessities of life, while others spend less than 10 percent for needs of the same urgency, observed differences in the levels of development of the two groups are not surprising . . . .”

\textsc{Travis, The Theory of Trade and Protection} 243 (1964).

\textsuperscript{23} Balassa, \textit{The Capital Needs of Developing Countries}, 17 \textsc{Kyklos} 197 (1964).

The author justifies his statement through appeal to the familiar identities describing equilibrium in an open economy:

\[ M - X = E - Y = I - S = I_r, \]

where

- \( M \) = imports
- \( X \) = exports
- \( E \) = aggregate expenditures
- \( Y \) = income
- \( I \) = investment
- \( S \) = saving
- \( I_r \) = net capital inflow

\textit{Ibid.} The equalities, indisputably correct, are of some value used in the context of a discussion of the impact of foreign aid. They nevertheless depict only ex post relationships, and are thus incapable of indicating the dynamics of the adjustment process which produced them.
costs may be disproportionate or lengthy delay may be required.\textsuperscript{24} The distinction nevertheless provides a convenient framework for exploration of the potential of alternative programs designed to overcome growth barriers.

C. Parameters and Prospects

1. Capital Transfer

The levels of constraints of both types can be raised by inflow of capital from industrial areas. While inadequate to support proposed ambitious growth programs, current resource transfers to backward regions are not insubstantial: in 1963, for example, they exceeded eight billion dollars. The United States alone provided 58 per cent of this sum. Grants by governments accounted for more than half of disbursements, and much of the remainder consisted of soft loans of public funds. Over two-thirds of the 1.5 billion dollars loaned by the United States to emerging nations in 1963 earns less than one per cent interest.\textsuperscript{25} Private capital transfer, almost entirely in the form of direct investment, totaled 1.8 billion dollars.\textsuperscript{26} In 1960, inflow of six billion dollars amounted to 3.5 per cent of national incomes of recipient states and was associated with a quarter of their total growth. A decade earlier only two billion dollars was provided. Capital receipts averaged four dollars per inhabitant throughout the poorer portion of the free world in 1958: Southeast Asians and Africans gained 2.3 and six dollars respectively, while the Latin American and Middle Eastern inflow

\textsuperscript{24}If unlimited quantities of labor and raw materials are available and the supply of land is fixed, the assumption of rigid factor proportions would imply a production function of the Harrod-Domar type:

\[ P = \min. (aK_d, \rho K_t) \quad a < 0, \beta > 0 \]

Here \( P, K_d, \) and \( K_t \) represent production, domestic capital goods, and imported capital goods respectively, and \( a \) and \( \beta \) are parameters. Output growth is restricted by deficiencies in \( K_t \) or in \( K_d \) and \( K_t \) jointly, depending on whether foreign currency or investment funds generally are lacking. See McKinnon, \textit{Foreign Aid Constraints in Economic Development and Efficient Aid Allocation}, 74 Econ. J. 388 (1964).

Substitution opportunities may be incorporated into the formulation through use of the CES production function:

\[ P = \alpha (\delta K_d + (1 - \delta)K_t) + \frac{1}{\rho} \quad \delta > 0, 1 - \delta > 0, \rho > -1 \]


\textsuperscript{25}For a recent survey of the institutional framework of intergovernmental lending see House Comm. on Foreign Affairs, \textit{Staff Memorandum on International Lending and Guarantee Programs}, 88th Cong., 2d Sess. (1964).

exceeded seven dollars per person. Between 1956 and 1959 these funds provided 14 per cent of transferee foreign exchange resources.27

Although the political nature of foreign aid decisions precludes confidence in projections of current trends, the possibility of dramatic increase in the availability to underdeveloped states of capital at noncommercial prices appears remote. Lewis states: "[T]he future of foreign aid is now critically in doubt, not only in the United States, but even in France, where aid has hitherto been sacrosanct." 28 Interest rates on private loans, which must reflect the uncertainties inherent in any long-term international transaction, are frequently prohibitively high. Nor is investment by nonnationals a panacea. The governments of backward countries often feel that unless closely regulated, participation in domestic ventures by the alien entrepreneur may be a more costly source of funds than borrowing:

"In such a sheltered market, almost every new industry has possibilities of a fourfold growth or so in ten years. Moreover, the dividend policy of Indian companies is to pay around 10 per cent per annum. This is necessary to maintain a good credit standing in the stock markets. Thus it is not unusual to derive a 400 per cent return in equity investment in ten years. This creates no difficulty for the planners and policy makers of India insofar as domestic equity investment is concerned, for with proper tax and other policies, consumption can be dissuaded and reinvestment encouraged with respect to these high profits. But foreign equity investment presents another problem. It is India's policy, and one which she intends to maintain, to allow free remittance of profits and repatriation of capital, including capital gains, to foreign enterprise in India. In view of this policy, India feels it must be prepared to return in ten years $5.00 for every dollar it allows as foreign equity investment. On the other hand, a ten-year loan at 6 per cent interest would require a foreign exchange repayments burden of only $1.60 to $1.00." 29

A justified fear of expropriation raises demanded profit levels and limits


29 KUST, FOREIGN ENTERPRISE IN INDIA 55 (1964). A more traditional view is in disagreement: "Capital to be used for machinery acquisition will probably have to be available in hard currency. There are three sources of such capital. The best is from an export balance of trade because it is earned by the nation involved itself. The next best is investment or equity capital, since it need not be repaid,... The third is commercial lending, which has the disadvantage of requiring repayment,..." Mentschikoff, supra note 20, at 194. See Rothwell, The Extra Borrowing Costs of Fixed-Return Over Equity Foreign Capital, 11 Indian Econ. J. 311 (1964). See also Ball, Capital Imports and Economic Development: Paradoxy or Orthodoxy?, 15 KYKLOS 610 (1962); Kaizuka, A Remark on Capital Imports and Economic Development, 17 KYKLOS 403 (1964);
the magnitude of ventures undertaken.\textsuperscript{30} Earnings are frequently less than is commonly supposed: "The average rate of return of U.S. manufacturing


At present the developing economies owe in excess of $30 billion to their industrialized neighbors. In 1962 external public debt service costs in Argentina, Brazil, and Chile were 22.8, 24.2, and 27.6\% of export receipts respectively; 30\% of 1964 aid flows to poorer nations were offset by interest charges. Weintraub, \textit{The Foreign-Exchange Gap of the Developing Countries} 18-19 (Princeton Univ. Essays in International Finance No. 48, Sept. 1965).


"International law does not consider the nature of property rights nor does it regulate property relations within a state. Under international law states are sovereign, therefore only municipal and not international law can regulate all matters connected with the acquisition, transfer and loss of ownership rights, including the loss of ownership under the terms of a nationalization law. This cannot become a subject for discussion by another state. The laws of the state carrying out the nationalization, and not international law, determine the conditions under which property is taken from private persons and in particular to whom the law extends, whether or not compensation shall be paid, etc., etc. This postulate applies equally to the property of aliens."

industries in Latin America after depreciation was 3.6 per cent for 1962 compared with 8.8 per cent in the United States and 11.3 per cent in Western Europe. Over 1957-62, these average rates were 6.6 per cent, 8.7 per cent and 14.9 per cent, respectively."

2. Sales Abroad

Export earnings of less-developed countries are expected to expand at an annual rate of between 3.7 and 4.9 per cent during the next five years. Although promoting increase in these receipts would appear the obvious method of acquiring foreign exchange sufficient to permit import of capital equipment needed for accelerated domestic development, prospects are poor for rapid growth in this sector.

Demand for commodities produced at a comparative advantage in backward regions is generally both price and income inelastic. Rapid expansion of output of many of these goods would merely cause price declines so extensive that total revenue would itself be lowered: in the coffee market, for example, a mere 10 per cent increase in supply with demand unchanged would induce a price fall of almost a third. Here a policy advantageous to the individual nation is disastrous when adopted universally.


33 See Krelle, Preistheorie 3-8 (1962).

34 The calculation is based on an estimated price elasticity of -.25. Data from the United States, which alone accounts for ½ of world imports, yield an elasticity between -.2 and -.3. Balassa, Trade Prospects for Developing Countries 199; FAO, The World Coffee Economy 31 (1961). Equivalent figures have been obtained for Argentina, Canada, Finland, Sweden, Switzerland, and the Federal Republic of Germany. ibid. See
As standards of living rise a smaller proportion of total income is spent on food and on other raw material intensive commodities: "[T]he total consumption of wheat in the United States has been fairly stable since the beginning of the twentieth century despite the tremendous expansion in population and increase in real per capita incomes during the period."\(^{35}\)

Technical progress may reduce raw material input by improving process efficiency or by allowing substitution of synthetics. In the United States in the first half of the present century the amount of coal required to generate one kilowatt-hour of electricity fell from 7.05 to 1.19 pounds.\(^{36}\)

Politically necessary tariff and quota barriers in wealthier lands frequently preclude imports from backward regions even where substantial comparative advantage exists:

"[D]eveloped countries have their own domestic sources of supply of many primary commodities and the tendency has been for them to become more self-sufficient rather than less. "It has been estimated, for example, that in the United States total consumption of twenty-six primary commodities excluding petroleum rose by 35 per cent from 1927-29 to 1955-57, while imports of the same commodities increased only 17 per cent. In Western Europe consumption of these commodities also advanced 35 per cent during this period, but the volume of imported supplies rose only 9 per cent—even less than in the United States."\(^{37}\)

Farmer protection and subsidization permitted the United States, burdened with surpluses, to export agricultural products valued at 6.1 billion dollars

also Lehbert, *Die Auswirkungen der Kaffeesteuer auf den Kaffeeverbrauch in der Bundesrepublik Deutschland*, 91 WELTWIRTSCHAFTLICHES ARCHIV 327 (1963), and studies cited therein. The absolute value of the ratio rises as per capita income falls and may be between \(-.5\) and \(-.7\) where earnings per person are as low as $100 annually: approximations of \(-.61\) and \(-.40\) have been calculated for Italy and Greece respectively. FAO, *op. cit. supra* at 31 (1961).

\(^{35}\) Dell, *Trade Blocs and Common Markets* 176-77 (1963). Studies based on United States statistics yield coffee income elasticities between .2 and .3 or around .5, depending on periods selected and whether time series or budget data are used. FAO, *op. cit. supra* note 34, at 31-33 (1961). Three separate analyses reveal an approximately unitary West German proportion. Lehbert, *supra* note 34, at 327. Figures of .77, .57, and .26 have been derived for Italy, Finland, and Sweden. Cross-country comparisons show income elasticity declining sharply as income rises: per capita earnings of $400, $500, $750, and $1000 per year are associated with elasticities of 3.0, 1.8, 1.1, and .8 respectively. FAO, *op. cit. supra* note 34, at 31-33 (1961).

The assertion that the demand for food products is income inelastic, formalized as Engel's law, may be countered in part by a reminder that agricultural production is subject to the law of diminishing returns because of the limited quantity of the input land. See Haberler, *An Assessment of the Current Relevance of the Theory of Comparative Advantage to Agricultural Production and Trade*, 4 INT'L J. AGRARIAN AFF. 130, 136-38 (1964).


\(^{37}\) Id. at 178.
in the fiscal year 1963-1964. \(^{38}\) Competitive pressures in the labor-intensive \(^{89}\) world textile industry recently led to a trade-restricting international agreement under GATT auspices. \(^{40}\) Domestic measures supplement world constraints:

"The Federal Government has long subsidized cotton growers. Then, when exporters complained that the farmers' subsidy priced American cotton out of overseas markets, the U.S. started subsidizing exporters. And last year, after textile mill owners protested that the exporters' subsidy permitted foreign mills to buy U.S. cotton cheaper than American mills could, the Johnson Administration pushed through Congress a subsidy for the mills.

"So far, the textile industry has received a mouth-watering $329 million in subsidies; payments have even gone to prisons whose convicts work at weaving. . . ."

"The overall cotton program was advertised as costing $448 million during its first year. Instead, it is now expected to amount to nearly $800 million. . . . By last week the Commodity Credit Corp. owned a record 7,372,000 bales at a cost of $1.2 billion, on which storage charges alone run another annual $30 million." \(^{41}\)


\(^{89}\) See Bhalla, Investment Allocation and Technical Choice—A Case of Cotton Spinning Techniques, 74 Econ. J. 611 (1964).


\(^{41}\) Time, March 5, 1965, pp. 21-22.
Barriers are not confined to a narrow range of goods: "The Americans encouraged us to diversify our industry and not concentrate on just a few items like textiles or toys or radios. We followed this advice, but now that we want to sell our new products to America the voices of the protectionists oppose us." 42

Fluctuation in exchange earnings, intensified by extreme specialization in the export sectors, can render hazardous the initiation by developing economies of long-term investment projects even though expected receipt averages would be sufficient to permit completion. International guarantees against sharp falls in import-purchasing ability have been impeded by the desire of backward nations to obtain aid grants in the guise of insurance and by the unwillingness of the industrialized states to commit themselves to future assistance expenditures of uncertain magnitude. 43

Coffee shipments account for roughly 7.5 per cent of purchases by the North Atlantic Community from underdeveloped states. 44 During the summer of 1962 representatives of the United States and 57 other countries, meeting in New York under the auspices of the United Nations, negotiated the International Coffee Agreement, 45 a treaty designed to permit control of the market for this commodity through regulation of its export. By April 6, 1964, the Agreement had been ratified or acceded to by 30 exporting countries representing 93.2 per cent of world coffee exports and 17 import-
ing countries representing 86.5 per cent of world coffee imports. Implementing legislation assuring American participation was signed by President Johnson on May 24, 1965.

3. Import Substitution

Whereas export earnings are often discouragingly unresponsive to domestic strategy, purchases abroad may be controlled by planners with relative ease. Reduction of imports of consumption commodities either by means of high duties restricting quantities demanded or through encouragement of creation of internal sources of supply permits a greater proportion of acquired foreign exchange to be employed to obtain products essential to the growth process. The new external tariff of the Central American Common Market will tax imported consumer goods at an average ad valorem level of 82.5 per cent, with individual rates as high as 150 per cent; in contrast, the levies on raw materials and machinery will average only 32 and 5 per cent respectively. As development progresses, substitution will also be possible in the capital goods sector itself, and increasing autarky will diminish the impact of limited export potential. Import-competing industries are however a product of expansion: development difficulties include the problem of their establishment.

4. Domestic Saving

Economic development has been characterized by Lewis as a “process by which a community which was previously saving and investing 4 or 5 per cent of its national income or less, converts itself into an economy where voluntary saving is running at about 12 to 15 per cent of national

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49 In general, low import duties, ranging from an equivalent of zero to 15 percent ad valorem, were fixed for raw materials and capital goods. For agricultural and industrial machinery, the maximum rates were not to exceed five percent ad valorem. For luxury products, and for consumption goods whose early production in Central America was deemed desirable, the duties were set in a range between 100 and 150 percent ad valorem. On the other hand, for those imported consumption items whose production by regional manufacturers was not possible, the limits were set at 25 to 50 percent ad valorem."
income or more." Rostow's five-stage model isolates a "take-off" phase of rapidly accelerated growth during which "the proportion of net investment . . . rises . . . to over 10 per cent [of net national product (NNP)]." Since marginal propensities to consume are substantially below average propensities, increases in per capita income will raise the level of the saving constraint. Growth at an accelerating rate will be possible unless precluded by unavailability of required foreign exchange or a rising capital-output ratio.

In the past, internal acquisition of funds needed to commence this process has required oppression of the laboring classes by an elite to an extent incompatible with current American concepts of democratic equality.

Under a totalitarian regime, the power of the administrating group to raise saving levels is limited only by its ability to enforce its policies and by the need to maintain the productivity of workers and peasants: "Communism is a system for inducing people to produce more and eat less." In China


52 See Fei, Per Capita Consumption and Growth, 79 Q.J. Econ. 52 (1965).

53 See de Schweinitz, Free Enterprise in a Growth World, 29 So. Econ. J. 103 (1962). Although the author argues that "economic freedom is a function not only of the structure of economic organization, but of economic growth as well," id. at 110, critics have stated:

"His position is that economic growth at low levels of per capita income depends on increases in stocks of resources. These increases can be realized only by forcing the masses to save through coercive institutional changes. Under the usual conditions of economic backwardness, growth will occur only if a minority imbued with a growth perspective creates the institutions favorable to growth. From this reasoning he concludes: first, that doubt is cast upon the ability of the free enterprise system to initiate and sustain growth; and second, that growth must mean a temporary decrease in economic freedom for the masses."


in 1933 gross investment amounted to 5 per cent of domestic expenditure; in 1957 it totaled approximately 25 per cent, but per capita consumption was at least 10 per cent lower.55

Capitalism in Great Britain during its industrial revolution masked extreme economic inequities beneath a liberal institutional facade: here in 1880 fully 48 per cent of total personal income was received by only 5 per cent of the population; today this most prosperous segment obtains only 18 per cent.56 The wage laborer does not enjoy the slave's protection of employer concern for preservation of his capital investment. The Sadler Committee appointed by Parliament in 1832 to examine working conditions recorded this testimony:

"Have you worked in a mill from your youth?—Yes, since I was 5 years of age.

"Were you hired for any length of time when you went?—Yes, my mother got 15s. for six years, I having my meat and clothes.

"What were your hours of labor, as you recollect, in the mill?—In the summer season we were very scarce of water.

"But when you had sufficient water, how long did you work?—We began at 4-o'clock in the morning and worked till 10 or 11 at night; as long as we could stand on our feet.

"Were you kept on the premises constantly?—Constantly.

"Locked up?—Yes, locked up.

"Night and day?—Night and day; I never went home while I was at the mill.

"Do the children ever attempt to run away?—Very often.

"Were they pursued and brought back again?—Yes, the overseer pursued them and brought them back.

"Did you ever attempt to run away?—Yes, I ran away twice.

"And you were brought back?—Yes; and I was sent up to the master's loft, and thrashed with a whip for running away.

"Do you know whether the children were, in point of fact, compelled to stop during the whole time for which they were engaged?—Yes, they were.


“By law?—I cannot say by law; but they were compelled by the master; I never saw any law used there but the law of their own hands. . . .”

Large internal income disparities in backward states allow some individuals in the community to save large proportions of their receipts. Our surprise on learning that domestic saving in the Congo has exceeded 20 per cent of national output is mitigated on discovery of earnings distribution data: in 1950 the 11.5 million natives and 56,000 nonindigenous residents of the region had average per capita incomes of 23 and 2,946 dollars respectively. In Latin America in 1962 the most prosperous 5 per cent of the population of the average country received 33 per cent of all income; in Europe between 1949 and 1955 and in the United States around 1961 the corresponding figures were 22 per cent and 20 per cent respectively.

“In Guatemala, 516 farms (0.15 per cent of all farms) contain 41 per cent of the agricultural land; in Nicaragua, 362 owners control over one third; in Ecuador, 705 units (0.17 per cent) control 37 per cent. In Venezuela, 74 per cent of the farm acreage, comprising 6,800 units (1.69 per cent of all farms) is in holdings of over 1,000 hectares. In Brazil, half the farm land is in the hands of 1.6 per cent of the owners, while in Peru, 1.4 per cent of the landowners hold 62.8 per cent. In

57 V O I C E S O F T H E I N D U S T R I A L R E V O L U T I O N 86 (B o w d i t c h & R a m s l a n d eds. 196 1). A factory overseer testified:

“Q. At what time in the morning, in the brisk time, did these girls go to the mills?
“A. In the brisk time, for about six weeks, they have gone at three o’clock in the morning and ended at ten or nearly half past at night.

“Q. What intervals were allowed for rest and refreshment during those nineteen hours of labor?
“A. Breakfast a quarter of an hour, and dinner half an hour, and drinking a quarter of an hour.

“Q. Was any of that time taken up in cleaning the machinery?
“A. They generally had to do what they call dry down; sometimes this took the whole time at breakfast or drinking.

“Q. Had you not great difficulty awakening your children to the excessive labor?
“A. Yes, in the early time we had to take them up asleep and shake them.

“Q. Had any of them any accident in consequence of this labor?
“A. Yes, my eldest daughter. . . . the cog caught her forefinger nail and screwed it off below the knuckle.

“Q. Has she lost that finger?
“A. It is cut off at the second joint.

“Q. Were her wages paid during that time?
“A. As soon as the accident happened the wages were totally stopped.”


58 A. R o b i n s o n, I n t r o d u c t i o n, i n E C O N O M I C D E V E L O P M E N T F O R A F R I C A S O U T H O F T H E S A H A R A at ix, xii (A. Robinson ed. 1963).

59 B e z y, B e l g i a n C o n g o, i n E C O N O M I C D E V E L O P M E N T 184, 211 (P e p e l a s i s, M e a r s & A d e l m a n eds. 1961).

Chile, some 3,000 farms of 1,000 or more hectares occupy almost 75 per cent of the farm land."  

In Panama in 1959, “twenty taxpayers accounted for 65 per cent of total income tax collections.” Exchange controls and assurances of domestic entrepreneurial opportunities can divert this wealth from Swiss accounts to development programs.

Although primitive conditions render systems of taxation both economically disruptive and costly to administer, public revenues must remain an important source of investment funds. Duties on exports are popular because collection poses few difficulties; levies on imports combine equal ease of enforcement with favorable balance of payments effects. Heavy excise taxation of luxury goods, such as automobiles, may reduce expenditures of the rich without seriously damaging incentives through prevention of conspicuous consumption: the prestige value of a Rolls-Royce is determined not by its cost of manufacture but by its selling price. Finally, saving may be forced at the cost of the dislocations of inflation simply by printing the money needed for public investment purchases.

D. Reactions

The poor prospects for dramatic economic advance by less-developed nations through autonomous action and the limited quantities of assistance available from industrialized states have combined with a recent sharp shift in terms of trade in favor of manufactured products to induce widespread

63 See IMF, FIFTEENTH ANNUAL REPORT ON EXCHANGE RESTRICTIONS (1964); Marshall, EXCHANGE CONTROLS AND ECONOMIC DEVELOPMENT, in ECONOMIC DEVELOPMENT FOR LATIN AMERICA 430 (Ellis ed. 1961).
64 See MEIER, LEADING ISSUES IN DEVELOPMENT ECONOMICS 169-228 (1964); INFLATION AND GROWTH IN LATIN AMERICA (Baer & Kerstenetzky eds. 1964); Ellis, PRICE STABILITY: THE CONFLICT BETWEEN GROWTH AND THE CONTROL OF INFLATION, in ECONOMIC DEVELOPMENT WITH SPECIAL REFERENCE TO EAST ASIA 255 (Berrill ed. 1964); Mamalakis, "FORCED SAVING" IN UNDERDEVELOPED COUNTRIES. A REDISCOVERY OR A MISAPPLICATION OF A CONCEPT?, 17 ECONOMIA INTERNAZIONALE 403 (1964); Mueller, STRUCTURAL INFLATION AND THE MEXICAN EXPERIENCE, 5 YALE ECON. ESSAYS 145 (1965); Seers, INFLATION AND GROWTH: A SUMMARY OF EXPERIENCE IN LATIN AMERICA, ECON. BULL. LATIN AM., Feb. 1962, p. 23.
65 See Haberler, TERMS OF TRADE AND ECONOMIC DEVELOPMENT, in ECONOMIC DEVELOPMENT FOR LATIN AMERICA 275 (Ellis ed. 1961); Morgan, TRENDS IN TERMS OF TRADE, AND THEIR REPERCUSSIONS ON PRIMARY PRODUCERS, in INTERNATIONAL TRADE THEORY IN A DEVELPING WORLD 52 (Harrod & Hague eds. 1963); Schultz, ECONOMIC PROSPECTS OF PRIMARY PRODUCTS, in ECONOMIC DEVELOPMENT FOR LATIN AMERICA 308 (Ellis ed. 1961).

This general term masks a profusion of measurement formulae. Most popular because of ease of calculation is the commodity terms of trade ratio, simply

\[
\frac{P_x}{P_m}
\]

where P represents price and the subscripts x and m refer to exports and imports
rejection of the tenets of traditional trade theory. In their place have been substituted models of exploitation and progressive immiseration which promise redemption through industrialization: "What alchemy was to the Middle Ages, industrialization is to the underdeveloped world of this century—the magic elixir that can transform feudal societies." Thus Prebisch differentiates a "center" of industrial lands from a "periphery" of retarded regions and argues obscurely that monopolistic labor unions and disparities in "technological density" concentrate the benefits of production advances in the former areas. Myrdal has similarly used the inherently unobjection-

respectively. The gross barter terms of trade, today little used, may be defined as

\[ \frac{Q_x}{Q_m} \]

where Q stands for quantity. The income terms of trade, an expression of the value of exports in terms of imports which has been frequently employed by the United Nations Economic Commission for Latin America, is

\[ \frac{P_x Q_x}{P_m} \]

Single and double factoral indices, written

\[ \frac{\pi_x P_x}{P_m} \]

and

\[ \frac{\pi_x P_x}{\pi_m P_m} \]

respectively, incorporate productivity alterations; although they provide a useful guide to welfare changes, data permitting computation are frequently unobtainable. See Haberler, A Survey of International Trade Theory 24-29 (1961).


For a discussion of free trade doctrines as propaganda designed to render acceptable to all advantages accruing to economically dominant nations as a result of unregulated international intercourse see J. Robinson, Economic Philosophy 62-66 (1963). "The hard-headed Classical made no bones about it...[T]hey were in favor of Free Trade because it was good for Great Britain, not because it was good for the world." Id. at 124.


68 Nechemiks, op. cit. supra note 61, at 185. See id. at 185-204.

able 70 “vicious circle” concept so successfully employed in his study of the
American Negro 71 as a basis for poorly substantiated condemnation of the
present world economic structure. 72 Most nevertheless reject autarky: “As we see nowadays in South-East Asia or the Caribbean, the misery of being
exploited by capitalists is nothing compared to the misery of not being ex-
loited at all.” 73

The intemperate embrace of iconoclastic ideologies is reminiscent of
the blind enthusiasm evoked by religious movements generated by van-
quishment in intercultural strife. On a lower level the most fascinating mani-
festation of uncomprehending despair produced by interaction between
primitive communities and the technologically advanced West is the cargo
cult. In many parts of Melanesia large followings have been obtained by
prophets predicting the arrival of supplies of presently unobtainable manu-
factured products which will be distributed at no cost to the indigenous
populations. “Those in the coastal villages have built wharves out into the
sea, ready for the ships to tie up, and those in land villages have constructed
airstrips out of the jungle for the planes to land. And they have waited in
expectancy for the . . . Coming of the Cargoes.” 74

Traditional international trade analysis posits a system of static balance;
while the logic of its theorems is impeccable, they have in general little
relevance to the dynamic problems of development. 75 Chenery asserts:

“Growth theory contains at least four basic assumptions about under-
developed economies that differ sharply from those underlying the
comparative cost doctrine: (1) factor prices do not necessarily reflect
opportunity costs with any accuracy; (2) the quantity and quality of
factors of production may change substantially over time, in part as a
result of the production process itself; (3) economies of scale relative
to the size of existing markets are important in a number of sectors of

Economic Development of Latin America and Its Principal Problems, Econ. Bull. Latin
latter-day high priest is the distinguished Argentine Raúl Prebisch.” NEHEMIAH, op.
cit. supra note 61, at 186.

70 For a clever study of equilibrium at unacceptable levels see LEIBENSTEIN, Eco-
nomic Backwardness and Economic Growth (1957).

71 MYRDAL, An American Dilemma—The Negro Problem and Modern Democracy
(1944).


73 J. ROBINSON, op. cit. supra note 66, at 45.

74 FIRTH, Elements of Social Organization 112 (1951), quoted in HIRSCHMAN, The
Strategy of Economic Development 94 (1958). See LANTERNARI, The Religions of the
Oppressed 161-90 (1963); LAWRENCE, Road Belong Cargo (1964).

75 “[B]oth static neo-classical analysis of the allocation of given resources between
various uses, and Keynesian short-period analysis of how given resources are employed,
appear quite inadequate. A dynamic long-run analysis of how resources can be increased
in now what we require.” J. ROBINSON, op. cit. supra note 66, at 100.
production; (4) complementarity among commodities is dominant in both producer and consumer demand."

Esoteric doctrines are however not required to highlight the difficulties confronting emerging nations. So long as marginal propensities to import of these states remain above those of advanced countries equilibrium in international development requires continuation of wealth divergence. Among the five members of the Central American Common Market, for example, the income elasticity of import demand averages 1.7: for every dollar increase in national income, an additional 1.7 dollars is expended on foreign merchandise. Further rapid expansion of the world output of primary commodities can only lead to price declines, falling terms of trade, and diminished productivity levels.

Viner has claimed: "The real problem in poor countries is not agriculture as such, or the absence of manufactures as such, but poverty and backwardness, poor agriculture, or poor agriculture and poor manufacturing... In many countries, the most promising field for rapid economic development lies in agriculture..." Elkan nevertheless supports a preference for development of manufacturing capacity over stimulation of primary commodity output with the following arguments:

"(1) In primary production increasing quantities of capital and labour are usually combined with a stock of natural resources which is fixed or grows at a slower rate. This leads to diminishing marginal physical product (diminishing returns) per unit of additional capital and/or labour.

"(2) Manufacturing not only escapes diminishing returns to any noticeable extent but also offers significantly increasing returns to scale.

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78 Alcantara, supra note 48.

79 Viner, INTERNATIONAL TRADE AND ECONOMIC DEVELOPMENT 71-72 (1952).
“(3) In manufacturing technical progress tends to be faster and more pervasive than in primary production. The primary sector itself is technically more progressive in industrialised or industrialising countries.

“(4) Manufacturing is typically associated with a higher rate of capital formation and of skill formation than primary production.

“(5) Manufacturing activities generate more and stronger ‘backward and forward linkages’ and other external economies than primary production, and thereby induce more future investment.

“(6) Industrialisation and its consequences tend to change the value system of a society in a direction favourable to faster economic growth.”

Industrialization, permitting import substitution and export of manufactured products, appears mandatory for most nations.

II. The Common Market as Remedy

A. Econocentrism

1. Definitions

Paragraph 8 of article XXIV of the General Agreement on Tariffs and Trade (GATT) provides:

“(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.”


Avoidance of problems involved in distinguishing between internally and externally produced goods and attainment of administrative economies through elimination of intramarket customs facilities render establishment of a common external tariff generally advantageous where politically feasible. The term "common market" normally denotes a customs union within which "not only trade restrictions but also restrictions on factor movements are abolished." 82 "An economic union . . . combines the suppression of restrictions on commodity and factor movements with some degree of harmonization of national economic policies . . ." 83 Although mere economic cooperation among states has been called "integration," 84 this word is generally employed only to designate groupings of at least the free trade level. These terms, together with such nontechnical labels as "amalgamation" and "combination," are frequently used indiscriminately where precise delimitation of arrangement characteristics is not required. There is with respect to economic analysis no clear line between mere economic integration and federation.

The essence of such arrangements is discrimination: disregarding legal implications of nonadherence to GATT criteria, the degree of liberalization of intraterritorial trade is normally analytically unimportant so long as a differential with respect to third countries is established. The GATT requirement of substantial elimination of trade restrictions among union partners, designed


"A common market incorporates the attributes of a customs union. In addition, it provides for the elimination of restrictions on the movement of labor and capital between the participating customs territories and for some harmonization of national economic policies and institutions (e.g., common labor laws, common agricultural policies, common banking practices, etc.) through action of the member countries."


The Association of the Bar of the City of New York has asserted:

"The main characteristic of a 'common market' as opposed to a 'free trade zone' or the formation of a 'customs union' lies simply in the extent of the agreement as to the number of commodities for which trade will be freed. Such a market may refer to one or several categories of products, as in the case of the European Coal and Steel Community; may cover all the 'new industries,' as in the case of the Central American countries; or may even cover all categories of commodities produced by the signatory countries in which case it becomes, in fact, a 'free trade zone' or a 'customs union.'"

COMM. ON FOREIGN LAW, ASS'N OF THE BAR OF THE CITY OF N.Y., ECONOMIC INTEGRATION IN LATIN AMERICA 11-12 (1962). This definition appears to have little support in the literature.

83 BALASSA, THE THEORY OF ECONOMIC INTEGRATION 2 (1961). "An economic union has the basic characteristics of a common market, but incorporates some cession of executive power by the member governments to a central authority." PINCUS, THE CENTRAL AMERICAN COMMON MARKET 75 n.1 (1962).

84 TINBERGEN, INTERNATIONAL ECONOMIC INTEGRATION (1965); Balassa, Hacia una teoría de la integración económica, in INTEGRACIÓN DE AMÉRICA LATINA 3 (Wionczek ed. 1964); Haberler, Integration and Growth of the World Economy in Historical Perspective, 54 A.M. ECON. REV. 1 (1964).
to protect the integrity of the most-favored-nation principle, may be criticized on theoretical grounds. Meade argues that gain from trade creation and loss from trade diversion depend in part on the height of tariff barriers prior to amalgamation: where duty rates are not greater than necessary to exclude all import, they measure international production cost differences and hence the benefit to be derived from shifts in activity location. Thus efficiency increase caused by output transfers among partner states will in general be less substantial in the later stages of a progressive tariff reduction program, while disadvantage due to abandonment of extra-union sources of supply should vary only stochastically throughout the adjustment process. It follows that lowering of duties on trade among associated states is more likely to produce world welfare gain than is complete elimination.85

"[A] partial all-round reduction by the partner countries of their duties on each other's trade is more likely to do good and less likely to do harm than is the subsequent total elimination of those duties. In this sense the case for a system of partial preferences is stronger than that for a complete customs union. . . . A mutual reduction of import duties by the partner countries will expand their mutual trade, but it may also divert their import and export trades. On the trade expansion there will always be a gain of welfare; but the gain will be lower, the lower are the duties on this trade. At each successive reduction of these duties there will, therefore, be less gain to be reaped from any further expansion of their mutual trade. But since the duties in other countries on the partners' exports and the partners' duties on their imports from outside countries remain constant, the loss of welfare on each unit of trade diversion remains unchanged throughout the process of formation of the union." 85

2. Theory

The bulk of economic analysis evaluating the impact of the customs union on international trade has been devoted to exploration of the total world welfare implications of consequent changes in the extent of specialization of production in response to the dictates of comparative advantage. Many early advocates of free trade argued that since uninhibited intercourse efficiently allocates community resources and since customs unions reduce


It seems clear that if tariff barriers are deemed necessary to satisfy balance of payments constraints a discriminatory duty structure can provide the desired equilibrium at least cost in terms of interational efficiency. See JOHNSON, THE WORLD ECONOMY AT THE CROSSROADS 37-48 (1965).
tariffs, economic association was to be encouraged as movement toward optimality. Paradoxically, protectionist thinking was frequently in agreement: there was hope that, through integration, markets for nationally produced commodities could be expanded without a fully compensating rise in imports. “The literature on customs unions in general, whether written by economists or non-economists, by free traders or protectionists, is almost universally favorable to them . . . . It is a strange phenomenon which unites free-traders and protectionists in the field of commercial policy . . . .” 86 In a pioneering academic inquiry in 1950, Viner formalized these primitive arguments, demonstrating that although beneficial trade creation through intraunion production shifts is possible, such adjustments can be outweighed by harmful diversion of demand from low-cost supply sources in excluded regions: if some aspects of a system are constrained to nonmaximizing levels, there is no reason to assert that satisfaction of other conditions of optimality will necessarily prove advantageous.87 He asserted: “Customs unions are not important, and are unlikely to yield more economic benefit than harm, unless they are between sizable countries which practice substantial protection of substantially similar industries.” 88

The normative implications of Vinerian conclusions were soon disturbed by qualifications arising from consideration of consumption effects. Relaxation of the unrealistic assumption that goods would be purchased in a given proportion regardless of relative prices eliminated preclusion of net benefit from trade diversion in a world where only intranationally produced commodities and diverted commodities exist: given competitive conditions, the impact of purchase expense increase due to transfer of demand to less efficient sources of supply can be more than offset by utility advantages derived from universal equation of marginal costs with unit prices.89 Intro-

86 VINER, THE CUSTOMS UNION ISSUE 41 (1950). See the comprehensive bibliography in id. at 171-211.


88 VINER, THE CUSTOMS UNION ISSUE (1950). See also Makower & Morton, A Contribution Towards a Theory of Customs Unions, 62 Econ. J. 33 (1953). From Viner’s monograph Meade has deduced a procedure for calculating net world gain or loss from integration programs. If perfectly elastic supply curves and perfectly inelastic demand curves are posited, a measure of welfare change can be obtained simply by comparing dollar values of created and diverted trade weighted by cost differences between alternative supply sources. MEADE, THE THEORY OF CUSTOMS UNIONS 34-36 (1955). See also Bentick, Estimating Trade Creation and Trade Diversion, 73 Econ. J. 219 (1963); Grubel, Estimating Trade Creation and Trade Diversion: A Note, 74 id. 1018 (1964); Bentick, Estimating Trade Creation and Trade Diversion: Reply and Further Note, id. at 1020.

duction into the model of a third good which after union would continue
to be supplied by an excluded nation severely limited the implications of
this analysis by revealing that divergence of cost-price ratios is inevitable. 80

Although inapplicability of the criterion derived to the substantial duty
alterations likely on union establishment severely restricts the value of his
contribution, Meade has shown that, granted a set of highly unrealistic clas-
sical assumptions, the welfare effect of marginal variation in tariff rates can
be computed by subtraction of diverted from created trade values if both
are weighted by their ad valorem burden percentages. 81 The author con-
cludes that chances of amalgamation induced welfare increase are improved
if obstructions to world trade are quantitative restrictions rather than tariffs;
if a high percentage of total economic activity is concentrated in the com-
bining states; if they are initially competitive but potentially complementary;
if prior to unification duties on trade among them are high but the rest of
the world is divided into numerous market areas protected by relatively
unrestrictive barrier systems; and if sources and markets in prospective part-
ner nations supply and absorb large proportions of the imports and exports
traded among them. 82

Argument foundations are hardly intuitively obvious: Meade posits
perfect competition, horizontal supply curves 83 absence of external econ-
omies and diseconomies and of consumer surplus, cardinal noninterdepend-
ent additive individual utility functions, and constant universally identical

80 Lipsey, Mr. Gehrels on Customs Unions, 24 Rev. Econ. Studies 211 (1957).
81 If \( p_i \) and \( c_i \) are price per unit paid by consumers for good \( i \) and the production
cost of that good respectively and \( dX_i \) is the change engendered in its physical
quantity, Meade's criterion may be written:

\[ \sum (p_i - c_i)dX_i. \]

82 Meade, The Theory of Customs Unions 107-10 (1955). For further findings
see text accompanying note 85 supra and note 113 infra.
83 Additional work has further qualified the mounting body of normative con-
cclusions through exploration of the impact of posited patterns of increasing marginal
costs. If the lowest cost producer of a commodity is excluded from a union of two
other regions, the duty on the commodity is at no time prohibitive, and the common
external tariff of the union on the commodity is less than the higher of the two levies
prior to amalgamation, impact will be positive if:

\[ \frac{\partial S_H}{\partial P_H} > \frac{\tau - t_L}{t_H - \tau}, \]

where \( S \) and \( P \) equal quantity supplied and price, \( t \) and \( \tau \) represent tariff rates before
and after union, and the subscripts \( H \) and \( L \) denote symbol applicability to union mem-
bbers having higher and lower duties respectively before amalgamation. Spraos, The
Conditions for a Trade Creating Customs Union, 74 Econ. J. 101 (1964). See also
Mishan, Trade Creating Customs Unions—A Comment, 75 Econ. J. 238 (1965); Spraos,
income marginal utilities.\textsuperscript{94} Ingenious geometric analysis has enabled Vanek to derive parallel conclusions from less limiting premises: in particular, mere ordinal rankings are found sufficient. Although the author deduces that in general an advantageous union would require participation of at least two-thirds of the world economy if the external tariff is some average of those in force in the member states before integration, he asserts that benefit can always be obtained if excluded nations are compensated for amalgamation losses through reduction of duties applicable to their exports.\textsuperscript{95}

3. Limitations

The main current of customs union theory is thus best characterized as an expansion of the neoclassical international trade framework to embrace discriminatory activities: inclusion of a third country has complicated the model without altering the approach. "[T]he existing theory of customs unions is almost completely confined to the specialization of production according to comparative advantage. Problems of economic growth . . . are ignored."\textsuperscript{96} To the development economist, conscious abstraction from dynamic elements renders findings at best useless and more probably misleading:

"[T]he Viner formula for the evaluation of customs unions is subject to some grave objections. Like the neoclassical case for free trade, of which it is a corollary, it assumes fixed preference systems, constant production functions (technology) and fixed stocks of the factors of production; in short, it is concerned with making the best of a static world. Where the principal concern of policymakers is that of achieving the maximum rate of growth (and this is probably as characteristic an aim of those in the developed world as of those in the poorer nations), the trade creation and trade diversion aspects of a customs union may be of relatively little importance. What is wanted, rather, is an indication of the effect a customs union will have upon changes of

\textsuperscript{94} Reformulating Meade's index to take account of international disparities in income marginal utility, Vanek derives the measure:

\[
\sum_{n} A_n \left( \sum_{i} p_i \frac{dX_i}{N} - \sum_{i} c_i \frac{dX_i}{N} \right),
\]

where \(A_n\) represents the marginal utility of income for the \(n^{th}\) country and the subscripts \(n\) and \(N\) denote production and consumption magnitudes respectively. \textsc{Vanek, International Trade: Theory and Economic Policy} 375 (1962).

\textsuperscript{95} \textsc{Vanek, General Equilibrium of International Discrimination: The Case of Customs Unions} (1965). The complexities encountered in continued extension of analysis are best illustrated by Vanek's inclusion of a 107-item compendium of "results." \textit{Id.} at 211-31.

\textsuperscript{96} \textsc{Staley, Costa Rica and the Central American Common Market}, 15 \textsc{Economia Internazionale} 117, 122 (1962). See \textsc{Cooper & Massell, A New Look at Customs Union Theory} (Rand Corp. Papers P-2972, P-2972-1, Oct., Nov. 1964).
preference systems and upon the rate of growth of technological capability and the stock of productive factors."  

Much of the more pragmatic inquiry stimulated by postwar economic problems of the international community is similarly inapplicable to backward areas. Supporters of integration have stressed resulting heightened competition, promising both stronger pressures inducing intrafirm cost reduction and more rapid growth because of additional innovation incentives. Welfare gain potential has been attributed to anticipated increase in the variety of goods available to the consumer.

The implications of Continental amalgamation for underdeveloped countries have likewise received disproportionate attention. The President of Uruguay, in a statement expressive of Latin American attitudes toward preferences offered African nations, has proclaimed: "The formation of a European Common Market . . . constitutes a state of near-war against Latin American exports." There is talk of counterbalancing United States action. While expansion of discrimination in favor of former colonies throughout important segments of the Western market undeniably threatens the unity of the third world and is obviously economically detrimental to countries excluded from association, the difficulties raised are simply not sufficiently complex to support extensive analysis.

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Scholarly effort, directed primarily toward events in Western Europe, has thus been largely exhausted in exploration of effects of combination of economically advanced states:

“Interest in customs unions and free trade areas has received its greatest stimulation from recent European experience. The bulk of the discussion, both theoretical and empirical, of the economic advantages and disadvantages of such customs arrangements has consequently been geared to the European context. The existing accepted theory of customs unions, as originally [sic] formulated by Viner, is therefore of limited relevance to policy-makers in the ‘underdeveloped’ world. . . . The European situation is one of industrialized market economies, characterized by highly skilled and mobile labor forces, and close trading interrelationships. Prices at least approximate marginal costs and marginal social values. In this context, the questions asked by the economist may legitimately lean frequently towards the neoclassical ones of economic efficiency and optimal resource allocation.”

Unconsidered employment of criteria created for evaluation of the European Communities in studies of feasibility of integration among economically diminutive underdeveloped countries has yielded unwarranted negative conclusions. Allen, for example, asserts: “[A]n extremely low level of economic development will tend to keep economic benefits at a minimum. . . . [T]he higher the stage of economic development, the greater is the potential economic gain.”

B. Amalgamation Rationale

1. Support

Nevertheless, economists in increasing numbers are recognizing the possibility of integration among backward states as a potential partial solution, perhaps permitting self-extrication from the difficulties of underdevelopment. General Principle Ten established by the United Nations Conference on Trade and Development recommends: “Regional economic groupings, integration or other forms of economic co-operation should be promoted among developing countries as a means of expanding their intra-regional and extra-regional trade and encouraging their economic growth.


\[\text{Helleinner, supra note 97, at 285-86. See also Onitiri, Towards a West African Economic Community, 5 Nigerian J. Econ. & Social Studies 27 (1963).}\]

\[\text{Allen, Integration in Less Developed Areas, 14 KYKLOS 315, 319, 329 (1961).}\]
Reynoso, commenting on this declaration, asserts: "[S]e llegó finalmente a un consenso de opinión mundial en el sentido de que los programas de integración económica... constituyen un instrumento importante para el desarrollo económico." Linder believes: "[U]na unión aduanera entre países subdesarrollados... tiene a su favor más argumentos puramente económicos que su contraparte entre los países industriales." In a burst of excessive enthusiasm Herrera asserts: "It is certain that without integration there will be no economic development in Latin America."

The United States can be regarded as a convincing example of the value of common market arrangements. Certainly perpetuation of preunification interstate disharmony would have precluded the rapid economic expansion actually achieved. Intranational European commerce likewise suffered until relatively recently from domestic impediment. The Trade Treaty of 1786 removed the ban of France on the import of British textiles. A French observer complained:

"Although English merchandise is subject to duties of 10 per cent or 12 per cent, England can supply nearly all the provinces of the kingdom more cheaply than can our own industry. Our goods are subject to customs duties which prevent them from meeting English competition. It costs from 10 per cent to 12 per cent to send silk gauze, cotton cloth and velveteen from Lyon to Brittany, and it costs as much to send Flemish products into the interior of the kingdom. Woolen goods manufactured in Lille pay 7½ per cent at the bureau in Peronne alone. The cloth of Languedoc arrives in Paris and in Brittany only after having paid 15 per cent or 16 per cent in duties and expenses."


"Tolls on trade were collected throughout Europe in medieval times... Tolls
2. Static Gain

Regardless of its validity, much of traditional analysis cannot serve as a guide to decision-makers contemplating amalgamation: while it measures total world utility alteration, they pursue national advantage. Within the framework of comparative statics Vanek has demonstrated that integration will normally benefit participating nations.

Posit combination of countries a and b. Assume only two commodities, x and y, are produced. Let country a trade exclusively with b, exchanging y for x, while country b, in addition to its trade with a, exports x to and imports y from the rest of the world. In figure 1 vertical and horizontal sides of rectangle OaBObA represent joint output by states a and b of goods x and y respectively. If individual supplies of a and b are calculated from Oa and Ob, a point such as P will define quantities produced by each. Indifference curves such as ua, ub, and u'b may with caution be used to define community preferences. Amounts exchanged may be measured along axes Px and Py.

World terms of trade are given by PCb. Before integration country a imposes an ad valorem duty of \( \frac{PP_a}{C_{ap}P} \) on imports of good x; similarly, country b taxes shipments of good y at a rate \( \frac{PP_b}{C_{bp}P} \). Revenue is distributed among citizens of the recipient countries. Exchange will equate the marginal rate of substitution with the internal price ratio in each country: equilibrium will be reached at points Ca and Cb, where price lines PaCa and PbCb are tangent to indifference curves ua and ub respectively.

If the offer curve of the group of excluded nations is infinitely elastic and the levy of country b on commodity y is retained in the common external tariff, world terms of trade will remain unchanged on unification and the internal price ratio of states a and b will equal PbCb. Country a can achieve a level of satisfaction equivalent to C at C'. indifference curve Ua has the slope of PbCb. So long as C' falls below and to the right of k, state b can profit through integration without damage to its partner by advancing to indifference curve u'b. While possibility of loss cannot be excluded, gain will result over a wide range of parameter values. Alteration of world terms of trade would provide additional benefit.111

were established in the first place because they were among the simplest and most effective of taxes. It was possible to collect them without preparing tax rolls, with only the most rudimentary kind of assessment; and with the greatest possible certainty, because travelling merchants were obliged to use roads, rivers and seaports, and if they could not or would not pay as directed, their goods could be confiscated. . . . Because of their advantages as a method of taxation, tolls had come to be collected by many different authorities: governments of towns and provinces, feudal barons on their estates, rulers at the frontiers of their domains and principalities."

Id. at 1.

3. Increasing Returns

The concept of economies of scale has not been ignored in the major studies. Viner states: "When a small country by itself, because of the limited size of its domestic market . . . may be unable to reach a scale of production large enough to make low unit-costs of production possible, two or more such countries combined may provide a market large enough. . . ." 112 Meade recognizes: "[T]he formation of a customs union is more likely to raise economic welfare the greater is the scope for economies of large-scale production . . . ." 113

Its importance has nevertheless been minimized. Viner concludes: "It does not seem probable that the prospects of reduction in unit-costs of production as the result of enlargement of the tariff area are ordinarily substantial, even when the individual member countries are quite small. . . ." 114 Scitovsky admits that European plants are generally below optimum size but argues that factors other than market magnitude, for instance excessive product differentiation and preference for family enterprise, are determinative. He asserts that ignoring the impact of quantitative restrictions the gains from increases in specialization induced by union among the EEC states, Scandinavia, and Britain would be "less than one twentieth of one

per cent of the gross social product of the countries involved.”

A mere one per cent of national income has been held to be the absolute maximum benefit Britain can derive from membership in the European Free Trade Association.

Much of the projected gain from consolidation of the sheltered markets of backward nations can nevertheless be attributed to anticipated advantageous exploitation of economies of scale. Brown has strongly criticized the traditional approach:

“I do not think that most of the theoretical discussion of this subject helps us much. The treatments of Viner, Meade, Makower and Morton, Gehrels, and Lipsey . . . are concerned almost entirely with the effects on economic welfare . . . on the assumption that there are no productive economies of large scale. . . . [I]t takes comparative advantages and trade-patterns as they are now instead of considering what they are likely to be, say, a generation hence.”

Robinson states:

“It is not going too far, perhaps, to say that it seemed to be our general impression that most of the major industrial economies of scale could be achieved by a relatively high income nation of 50 million; that nations of 10-15 million were probably too small to get all the technical economies available . . . .”

Carnell asserts: “The economic argument turns largely on the alleged advantages of the economies of scale.”


“Some of the smallest nations can afford to have optimum-size, small-scale manufacturing facilities. A shoe factory, for example, requires a capital facility valued at $500,000 to $2 million to operate efficiently. Diversified meat packing requires an investment of $10 to $20 million, fresh meat packing requires capital of only $1 million. An optimum-size flour mill has capital requirements of $700,000 to $3.5 million, gypsum products $4 million to $6 million. Many other activities, including cement, soap, fountain pens, canned fruits and vegetables, tires and tubes need $25 million or less in capital facilities to achieve optimum scale.”

Allen, supra note 103, at 322-23. From this data he concludes: “Thus, many manufacturing facilities, primarily light manufacturing and consumer goods are within the market size of quite small less developed countries and there is no certainty that an increase in the size of the market would result in significant economies.” Id. at 323. This does not necessarily follow: he has not discussed the capacity of these enterprises but their cost. Allen then adds: “The question is not always just one of an adequate market but of attracting investment or allocating resources for investment purposes in the first place.” Ibid. The posited dichotomy is misleading to the extent that market characteristics guide investment decisions. In any event both prospective demand and capital funds are required.

119 Carnell, Political Implications of Federalism in New States, in Federalism and
While it has been obvious, at least since Adam Smith's description of a pin manufacturing plant, that large output permits increased factor efficiency, operationally meaningful general cost-output relationships remain difficult to quantify. Studies of particular industries provide some relevant data. In oil production, for example, unit cost of degassing operations declines at least until an output of 300,000 barrels per day is achieved. Because unit transmission friction varies inversely with pipeline diameter average petroleum land transportation costs fall until volume reaches approximately 400,000 barrels per day. A refinery with a daily capacity of 500,000 barrels will have substantial cost advantages over smaller plants. It has been asserted that the unit cost of production of a given type of aircraft declines by over 10 per cent if the model run is increased from 100 to 200 planes. The purchase price of a single large subsonic jet transport is roughly five million dollars. Balassa states:

"Over 1 million ingot tons is the annual output of an integrated steel plant of efficient size, costs are approximately 18 per cent higher at capacity levels of 0.5 million tons and 33 per cent higher in a plant producing 0.25 million tons per year. Yet, among less developed countries, steel production exceeds 1.0 million tons a year only in India, Brazil, and Mexico . . . ."  

One plant of minimum optimum size is capable of supplying between 10 and 30 per cent of American typewriter demand.  


See generally, Economic Consequences of the Size of Nations (E. A. G. Robinson ed. 1960); Bandt, Dimension du Marché et Optimum de Production (1962). "Statistical evidence bearing on the existence of economies of scale in industry is, for the most part, sketchy and incomplete, although the logic of the economic and technical origins of such economies has been extensively developed." Moore, Economies of Scale: Some Statistical Evidence, 73 Q.J. Econ. 232 (1959). Generalizing the "6 rule" derived by engineers seeking an approximate guide to machine cost as a function of output, the author inconclusively explores relationships of the form

\[ E = kC^a, \]

where E and C represent capital expenditure and created capacity respectively, k is an unrestricted constant, and a is a constant having a value between 0 and 1. For strong support of the rule see Schuman & Alport, Economies of Scale: Some Statistical Evidence: Comment, 74 Q.J. Econ. 493 (1960). See also Reply, 74 Q.J. Econ. 497 (1960); Bruni, Internal Economies of Scale With a Given Technique, 12 J. Ind. Econ. 173 (1964). See generally V. Smith, Investment and Production (1961).


"It has been shown that a doubling of the output of ammonia involves a 40 per cent increase in labor costs and 81 per cent rise in capital costs, while the relevant figures for ammonium nitrate and ammonium sulphate—the two most important types of fertilizers—are 27 and 68 per cent, and 20 and 65 per cent, respectively."

Id. at 91. See Balassa, op. cit. supra note 98, at 139.

Bain, Economies of Scale, Concentration, and the Condition of Entry in Twenty Manufacturing Industries, 44 Am. Econ. Rev. 15, 23 (1954).
Although frequently useful as crude approximations, more comprehensive studies of scale economies are seldom reliable. From the distribution of median plant sizes in Great Britain, for example, analysts have derived a list of goods which cannot be efficiently manufactured in quantities demanded by the Uganda population but can be produced at reasonable cost for the entire East African market: included are canvas, lace, wood crates, paper, scientific instruments, tools, hats, bicycles, paints, and linen. There is, however, little reason to conclude that the median British factory is of minimum optimal size: it may be larger if constant returns prevail over a significant portion of the production function; on the other hand, intra-industry specialization could lead to underestimation.

Although exact measurement of potential benefit must await future empirical analysis, an extreme example of limitation of entrepreneurial opportunity through market size restriction can provide qualitative illustration of argument thrust. On February 18, 1965, Gambia became the thirty-seventh independent state of Africa. This new nation, comprising 300,000 persons inhabiting a territory 200 miles long and between 15 and 30 miles wide, has been called by a former British Governor-General "a geographic and economic absurdity." Although peanuts are its only cash crop, additional income is obtained through smuggling cigarettes into surrounding Senegal: Gambia imports over a million packs per day. Colonial diversification efforts proved unsuccessful: "A mining scheme failed (no minerals); an ambitious shark fishery collapsed (no demand). The British government put 2,000,000 dollars into a model poultry farm . . . but . . . after a production of 40,000 eggs—at $50 an egg—the farm was transformed into a teacher's college." "British aid now amounts to $2,240,000 for development projects, plus $748,000 to meet a recurrent budget deficit." An approximation of Gambian national income may be derived through multi-


"[W]hile this method may be applicable in the case of homogeneous commodities, such as cement, it leads to misleading results in regard to cotton textiles, footwear and other consumer and producer goods where product differentiation is prevalent. In the latter instances, the efficient operation of a median British plant presupposes its integration into an industry manufacturing heterogeneous products with individual plants specializing in different varieties of the same commodity. Thus, while the consumption of footwear in an underdeveloped country might equal the production of a median British plant, efficient operation could still not be ensured in such a country since its only plant would have to produce all kinds of footwear in use rather than one or two varieties."

BALASSA, ECONOMIC DEVELOPMENT AND INTEGRATION 88-89 (1965). "[I]t can be held that Professor Brown underestimates—mainly by implication, but to some extent also explicitly—the order of size which an economy has to reach before the limitations of small scale cease to be a serious obstacle to its further development." Elkan, How To Beat Backwash: The Case for Customs-Drawback Unions, 75 Econ. J. 44 (1965).

plication of population by 113 dollars, the African average per capita earn-
ings in 1960. The result, roughly 34 million dollars, could hardly be said to
provide a market base capable of supporting a spectrum of optimal firms.
At the very least one may feel certain that cars and trucks will be imported
for the foreseeable future: the minimum annual output value required for
efficient production in the American automobile industry is conservatively
estimated to be in excess of one billion dollars.

4. Dynamic Benefit

We have found industrialization generally necessary for growth: both
import substitution and export of even partially finished goods normally
require manufacturing facilities. Although temporary tariff protection to
infant industries may be justified by benefit derived from generation of
external economies, especially from development of worker skills, continued
excess of domestic production costs over world supply prices entails
heavy sacrifice of real income by the community. Forced adoption of in-
efficient techniques may squander scarce investment funds by raising capital-
output ratios without concomitantly increasing profit.

Admittedly, iron ore can be mined only at deposit sites and orange

130 U.N. DEP'T OF ECONOMIC AND SOCIAL AFFAIRS, WORLD ECONOMIC SURVEY 1963
131 BAIN, BARRIERS TO NEW COMPETITION 76 (1956). See also Weiss, An Evaluation
of Mergers in Six Industries, 47 REV. ECON. & STATISTICS 172, 176 (1965). For significant
lower British estimates see Brems, Cost and Indivisibility, 12 J. IND. ECON. 142, 149 (1964).
The problem of inadequate internal markets currently confronts almost all developing
states: among them gross national product exceeds $7 billion only in India, Brazil,
Mexico, and Pakistan. BALASSA, ECONOMIC DEVELOPMENT AND INTEGRATION 80 (1965).
132 See Myint, Infant Industry Arguments for Assistance to Industries in the Setting
of Dynamic Trade Theory, in INTERNATIONAL TRADE THEORY IN A DEVELOPING
WORLD 173 (Harrod & Hague eds. 1963).
133 See Bardhan, External Economies, Economic Development, and the Theory
of Protection, 16 OXFORD ECON. PAPERS 40 (1964); Bardhan, Factor Market Disequi-
lbrium and the Theory of Protection, 16 OXFORD ECON. PAPERS 375 (1964). For a good
review of recent studies see Mishan, Reflections on Recent Developments in the Concept
134 See note 20 supra.

"It was early observed by aeronautical engineers . . . that the number of labor-hours
expended in the production of an airframe . . . is a decreasing function of the
total number of airframes of the same type previously produced. Indeed, the rela-
tionship is remarkably precise; to produce the Nth airframe of a given type, counting
from the inception of production, the amount of labor required is proportional
to \(N^{-1/3}\).

"Lundberg . . . has given the name 'Horndal effect' to a very similar phenomenon.
The Horndal iron works in Sweden had no new investment (and therefore pre-
sumably no significant change in its methods of production) for a period of 15
years, yet productivity (output per manhour) rose on the average close to 2%
per annum."

Arrow, The Economic Implications of Learning by Doing, 29 REV. ECON. STUDIES 155,
groves would not prove profitable to the inhabitants of Greenland; nevertheless many goods can be created or processed with advantage near their consumption points. Factor endowments are not divinely decreed constants. In backward regions a primary problem is the lack of a protected market sufficiently large to absorb the output of a plant of minimum optimum size. Euphoric dreams of short-run export potential will seldom evoke the capital needed to build from the beginning beyond even extrapolated domestic demand: normally comparative advantage will at least initially lie elsewhere, and subsidization permitting invasion of sheltered foreign markets would appear unjustifiable.

Economic union among Gambia and neighboring African states would immeasurably ameliorate its presently poor prospects of future economic viability. Expansion of the protected market would spur domestic entrepreneurial activity by significantly extending opportunities for rational industrialization. Local establishment of tire producing facilities on a scale sufficient to supply the demand of the entire integrated area, for example, would permit both economic autonomous satisfaction of internal needs and conservation of foreign exchange through barter of excess output for other vital manufactures similarly supplied by partner states.

Postulation of differing production functions among potential union members allows support of regional arrangements involving underdeveloped states even under assumptions of constant costs. If Gambia and Senegal can respectively supply tires and textiles with comparative advantage, traditional arguments of trade theory demonstrate that international specialization and concomitant exchange will raise real income in both states. Differences in cost structure among prospective partners are, however, likely to be the result of politically undesirable development disparities, which specialization would only aggravate.  

III. CONCLUSION

Low saving ratios and limited export potential restrict growth of backward states and impede politically necessary narrowing of international income differentials. Examination of European amalgamation potential in the context of traditional trade theory induced advocacy of the common market primarily as a device of advantage to groupings of advanced nations. In recent years, lack of alternative development opportunities has nevertheless focused attention on integration as a partial solution to third world expansion problems. Regional combination can stimulate industrialization through provision of protected markets sufficiently broad to permit scale economies. Intraunion specialization allows acquisition by participants of required imports without foreign exchange expenditure.