ECONOMIC DEVELOPMENT AND INTEGRATION: A CONCEPTUAL FRAMEWORK

By

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PREFACE

It is not often that one writes a dissertation - which is probably fortunate. The major stumbling block is not the want of burning issues of inquiry nor is it the innumerable hours of preparatory work. Rather it is the overwhelmingly awesome nature of the essay, itself. This is aptly presented by Dr. Paul Koefod in The Writing Requirements for Graduate Degrees:

> A dissertation is more dignified and formal than the usual literary essay. Its point of view is non-personal and its penetration is deeper. Its treatment is profound, not cursory; full, not brief; and weighty rather than light.
> ...It may attempt refinement of knowledge or establishment of a point of view. In the latter sense, a dissertation may be critical, normative, conjectural, even speculative.
>
> (Koefod, 1964, pp. 31-32).

It is against this background that this inquiry into the economic development of societies with respect to socio-cultural integration begins. This quest to unlock the mysteries of economic development began in childhood perceptions of human beauty among a mass of social misery and injustice. Enthusiastic and intelligent Carribean boys grew into disillusioned young men whose fierce eyes and anemic bodies gave voice to the need for social development. The disappointing results of the First United Nations Development Decade, despite the utilization of sophisticated techniques and large quantities of resources, have demonstrated the need for alternative approaches. It is the intention of this essay to provide one such alternative. If this effort should benefit at least one of the less fortunate members of Caribbean society then it would have been worthwhile.

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Abstract of Dissertation Presented to the Graduate Council
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Major conepts of economic development are presented and two observations are made: one, there is a trend in the literature towards structuralism but a framework and taxonomy are lacking. Two, there are elements of socio-economic integration in most of these concepts but their roles are not explicitly analyzed.

The conventional concept of economic integration is contrasted with a socio-cultural integration concept. An adaptation of the latter is utilized in the construction of an institutional framework for the analysis of the economic development of societies. The framework is founded on the rationality, interdependency and fallibility of secular Man. As the development process is presented, integration in the form of integrative institutions, is shown to play a crucial role. This is extended to various levels of social organization.

The analysis is first applied to simple two-person society and then to homogeneous and pluralistic societies. Its implementation is

discussed, including the descriptions of required empirical studies. Finally, economic development policy alternatives and implications are presented with respect to homogeneous and pluralistic societies.

CHAPTER I

INTRODUCTION

The economic development of societies is undoubtedly of major concern to persons in a variety of professions. Economists and other social scientists have for several decades analyzed phenomena associated with economic development in an attempt to discover the causative factors. Many have met with something less than success. The purpose of this essay is not to add to this list but to examine economic development from an institutional perspective. Simultaneously, the importance of integration as an institutional factor of economic development will be demonstrated.

Specifically, the first objective of the dissertation is to review the conventional concepts of economic development with particular emphasis on the role of integration. In those cases where the integrative element is implicit to the developmental concept, it will be brought to the fore. The second objective is to review the conventional concepts of economic integration. The third objective is to construct a framework for developmental analysis based on the concept of economic development as being the occurrence of social change such that the economic well-being of society is improved. The fourth objective is to state some implications of the analysis, particularly those relevant to developmental policy-making.

The task, as stated above, is enormous because of its interdisciplinary nature as well as the strong lack of both theoretical and

statistical work on the issue. Complicating this are the ambiguities involved in the concepts of economic growth and development. An all too often held belief is that economic growth and economic development are different concepts but in the long-run they are the same. The origin of such a belief may be traced back to eighteenth and nineteenth century economic thought. The long-term growth of the economy (in terms of the accumulation of wealth) was measured (and still is) by an increase in income per capita over time. The question of economic development, as an universal concept, never really received the study it deserved. Between that time and the present, economic development generally became indentified with economic growth more by default than by deliberate informed thought.

Since the dramatically disappointing results of the Green Revolution (Wharton, 1973) and the First United Nations Development Decade (Adiseshiah, 1970) many social scientists have focused on the "growth-development" problem. In addition, the recent outcry concerning the social disadvantages of economic growth (Adelman, 1975; Chenery, 1975) has called forth further investigation of the problem. There is abundant impressive evidence to discourage the indentification of economic growth with that of economic development. In all probability, the pyrmaids of Egypt and the pagodas of India, Burma and China were products of societies with relatively low per capita incomes, yet they are expressions of major developmental achievements. Today, these societies are regarded as "underdeveloped" becuase their average incomes are (US)$240, (US)$110, (US)$90, and (US)$170 (1972 statistics from World Bank Atlas, 1974). As A. K. Cairncross states,

> Anyone who looks at the pyramids, cathedrals and

> pagodas that other civilizations have bequeathed can hardly regard the construction of railways, dams and power stations as imposing an unprecedented burden on a poor community.
>
> (Cairncross, 1962. p. 251).

Certainly, one cannot correctly say that the remaining peoples of the Peruvian Incas, the Mexican Aztecs and the Central American Mayas are "underdeveloped" because (for most part) they are poor. Rather, one should state that their civilizations have been destroyed by one factor or another and that their remnant have integrated with other societies which are (incorrectly) regarded as "underdeveloped" because they are comparatively poor. Table I-1 presents other similar inconsistencies. The table gives statistics for 31 countries. The countries are ranked in descending order of their gross national product per capita (GNP/C) in 1972. The second column (GR/C) reports the annual growth rate of the gross national product per capita. The third and fourth columns report the average number of years of life expectancy at birth for males (MLE) and females (FLE) as of 1974. The fifth column reports the average number of inhabitants per physician (POP/P) as of 1970. The sixth column reports the percentage average dietary energy-supply requirements available (ADESR) in the period 1969-1971. This statistic is based on the average requirements of a moderately active man whose body weight is representative of the prevailing norm of each particular region.

Often, some poverty line is drawn on a table of this sort to differentiate between the "developed" and "less developed" countries. Such a line is entirely arbitrary and is really useful only for expository purposes. Besides mental comparisons of the numbers in Table I-1, three graphs are offered for visual comparison. Figure I-1 plots gross national product per capita on the horizontal axis and years of male and female life expectancy on the vertical axis. The scatter of points

TABLE I-1

INCOME, GROWTH, HEALTH AND NUTRITION INDICATORS

COUNTRY	GNP/C (US$)	GR/C (%)	MLE	FLE	POP/P	ADESR (%)
U. S.	5,590	2.0	67	75	600	126
Sweden	4,480	2.5	72	77	700	104
Canada	4,440	3.2	69	75	700	129
France	3,620	4.8	69	76	800	127
W. Germany	3,390	4.1	67	72	600	121
U. K.	2,600	2.0	68	74	800	126
Japan	2,320	9.7	70	74	900	107
U.S.S.R.	1,530	5.9	70		400	131
Panama	880	4.5	58	61	1,600	112
Chile	800	2.2	60	66	2,000	109
Saudi Arabia	550	6.8	42		10,000	94
Peru	520	1.1	53	55	1,900	99
Nicaragua	470	1.5	50		2,000	109
Algeria	430	3.5	51		7,900	72
El Salvador	340	1.2	57	60	4,000	84
Ivory Coast	340	4.1	41		12,100	105

GNP/C (US$): Gross National Product per capita in 1972. Estimates for centrally planned economies may differ widely due to problems of conversion from net material cost and into U.S. dollars.

TABLE I-1 (CONT'D)

COUNTRY	GNP/C (US$)	GR/C (%)	MLE	FLE	POP/P	ADESR (%)
Ghana	300	1.0	46		13,000	101
Liberia	250	4.0	46	44	10,000	94
Bolivia	200	1.4	50	55	2,300	79
Kenya	170	4.1	50	51	7,800	102
Nigeria	130	5.4	56	62	20,000	96
Pakistan	130	1.7	54	49	3,800	93
Haiti	130	1.3	45		13,200	77
Tanzania	120	2.9	40	41	21,600	98
India	110	1.4	42	41	4,800	94
Indonesia	90	4.3	48	48	27,600	93
Burma	90	1.0	48		9,000	102
Guinea	90	-0.3	25	28	49,700	88
Chad	80	1.6	29	35	62,900	89
Ethiopia	80	1.2	39		74,600	93
Rwanda	60	2.1	41		57,900	84

GR/C (%): Average annual growth rate of GNP per capita, 1965-1972.

MLE: Male life expectation (years) from birth. Estimates based on mortality rates between 1960 and 1970.

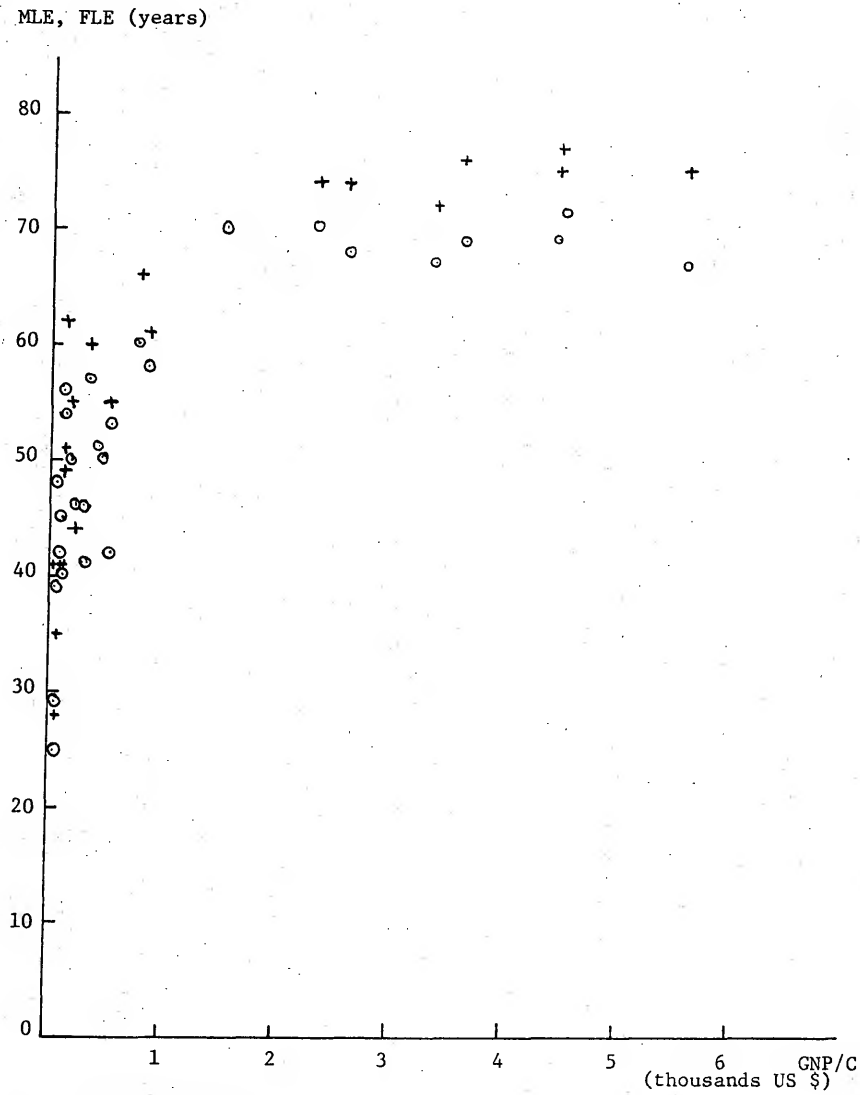
FLE: Female life expectation from birth (years) where available.

ADESR (%): Percentage average dietary energy-supply requirements available. Based on average requirements of a moderately active reference man whose body weight represents the prevailing norm for the particular region, 1969-1971.

POP/P: Average population per physician, 1970.

SOURCE: World Bank Atlas, World Bank, 1974
Demographic Yearbook, United Nations, 1974.
World Health Statistics Annual, World Health Organization, 1970.

FIGURE I-1



GNP/C, MLE points are represented by o.

GNP/C, FLE points are represented by +.

seem to indicate the possibility of a non-linear relationship between the per capita output and life expectancy variables. However, this is not evident in the income range from $0 to $1,000 per annum. In this low range, there does not appear to be a pronounced relationship. Such is the case also in the range of incomes above $2,000.

Figure I-2 relates gross national products per capita and the number of inhabitants per physician. Overall, it is possible to detect a rectangular hyperbola functional relationship between the two variables. However, as in the case of figure I-1, if the information is split into two gross national product per capita groups, below $1,000 and above $1,000, there is really no evident pattern. Graph I-3 relates gross national product per capita and the percentage of average dietary energy supply requirements available (ADESR). The relationship, if any, appears non-linear, as in figure I-1 and I-2. Here again, if the data is split into two income groups, below $1,000 and above $1,000, there appears to be only a slight possibility of a non-linear relationship in the former case and none in the latter case. Despite these observations, most economists would argue that some of these variables (and perhaps all) are aspects of development.

The preceding demonstrates the enormity of the proposed task. Not only must an empirically workable framework be established within which developmental relationships may be conceptualized and tested, but also fundamental concepts must be explicity stated and unambiguously defined. Simon Kuznets sums it up in this manner with respect to economic growth:

> Can we hope to formulate a theory of economic growth that would indicate the factors in the development of the more industrially advanced nations and thus illuminate the problem of their possible secular stagnation; to frame the factors so that a testable

FIGURE I-2

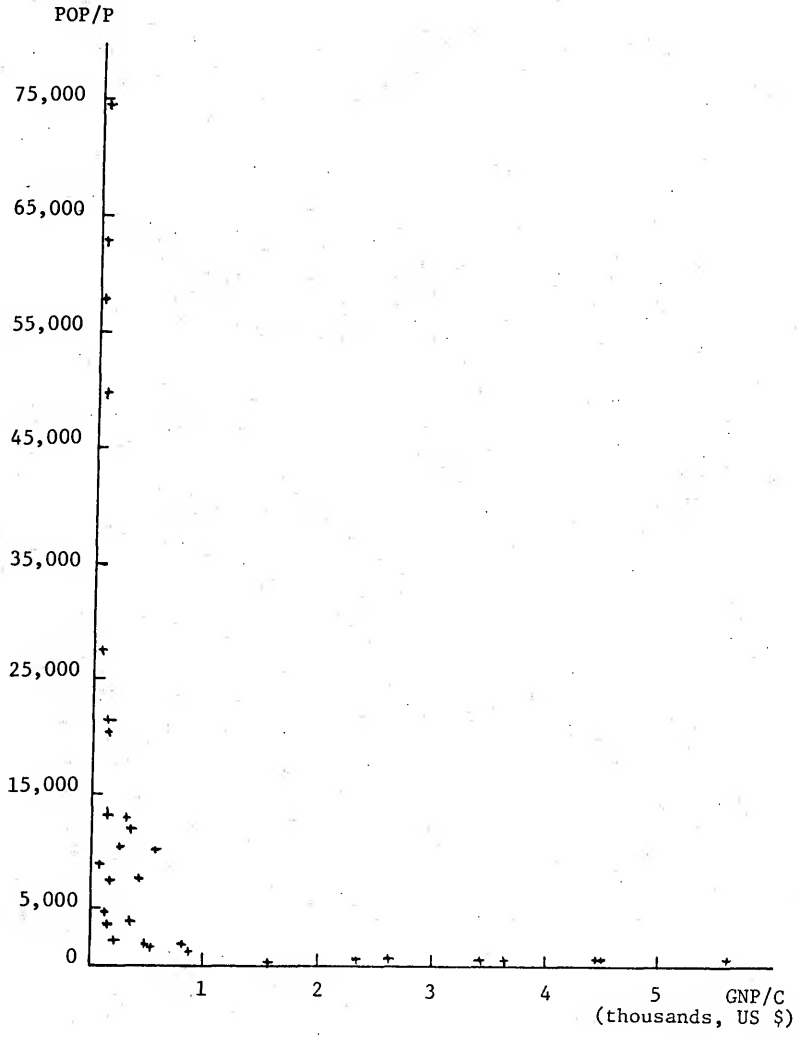
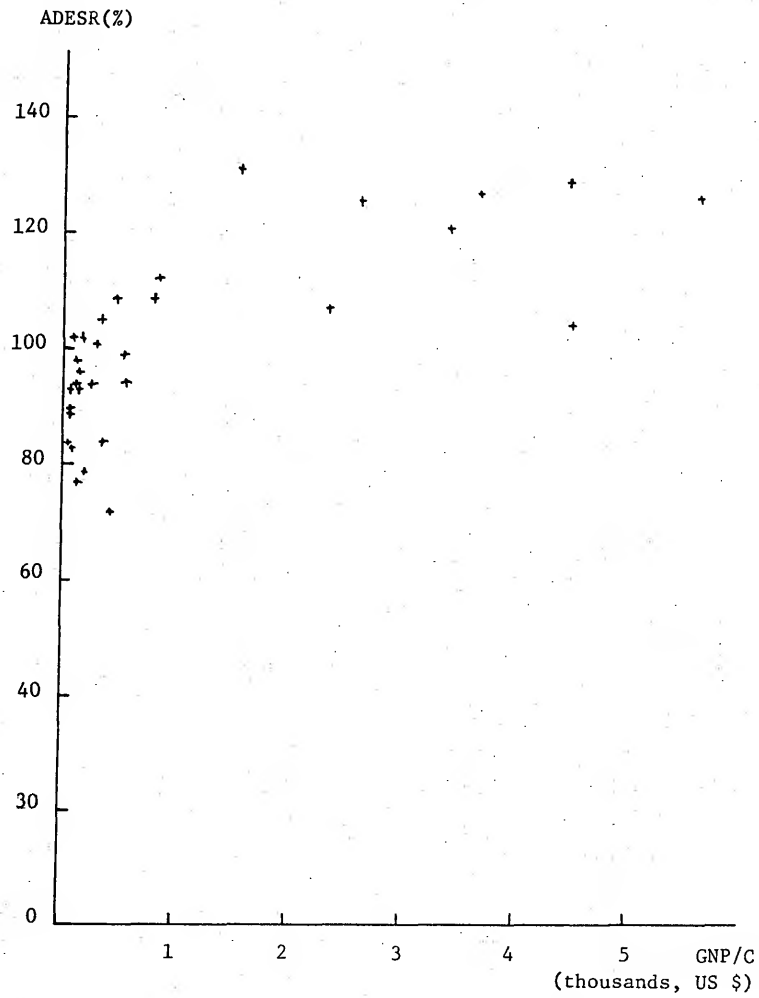

POP/P
75,000
65,000
55,000
45,000
35,000
25,000
15,000
5,000
0
1
2
3
4
5
GNP/C
(thousands, US $)

FIGURE I-3



> analysis of obstacles to economic growth of underdeveloped nations and hence a basis for intelligent development policy become possible; to consider the operation of these factors under a system of free enterprise, as well as within the authoritarian system, so that their interplay and potentialities in both become clear; and to distinguish the factors that make for peaceful and for warlike behavior, so that the bearing of each on economic growth can be clearly perceived? ... Such a theory of economic growth of nations may never be within our reach.
>
> (Kuznets, 1965. pp. 4-5).

CHAPTER II

CONCEPTS OF DEVELOPMENT AND THE ROLE OF INTEGRATION

Many attempts have been and are still being made to unravel the mysteries of economic development. Such attempts have encompassed a multiplicity of explanatory factors, ranging from highly measurable production variables to unobservable psycho-social behavior. Many of these theories have implicitly included some concept of economic integration however, its true character and contribution to economic development is often ignored or attributed to "technological" change.

The objective of this chapter is to examine the major schools of thought in the field of economic development and to call attention to the various references made to economic integration. In many instances it is necessary to bring forth these references from a rather obscure background of other theoretical material. Economic integration is interpreted more broadly than it is customarily treated in standard international economics texts. This is discussed in detail in Chapter III.

Beginning in the sixteenth century, economic development was identified with the acquisition of wealth. Wealth, as conceived by the Mercantilists of this period, was primarily bullion and precious stones. The body of informal theory, which later became known as Mercantilism, postulated that the regulation of trade in order to bring about a surplus of exports over imports, would lead to an inflow of specie and the

accumulation of wealth. It also postulated that the importation of relatively inexpensive primary products should be encouraged in order that they may be used as inputs in goods manufactured for export. This was one of the reasons behind the international expansion of the European powers in the Colonial era.

The flaws in such thinking have been adequately critiqued (cf., Viner, 1953). However, contained in these ideas are, perhaps, the earliest thoughts concerning economic integration as a factor in economic development. It was recognized that integrating two economies by trade would allow the economy with the favorable balance of trade to "develop." There was not much concern about the "development" of the trading partner. Furthermore, as long as the trading partner happened to be a colonial possession, there was really no need to "develop" it providing it kept the metropolitan country's income flowing.

In the late eighteenth century, Adam Smith systematized much of the economic thought of this period in his celebrated "An Inquiry Into The Nature and Causes of The Wealth of Nations". Economic development was prominent in his work and as Mark Blaug states,

> In his Introduction to the book, Adam Smith makes it clear that his leading theme is economic development: the long-term forces that govern the growth of the wealth of nations.
> (Blaug, 1968 p. 39).

Smith immediately follows his introduction with a discourse on the "division of labor". He uses the term broadly to encompass specialization in single and multi-product economic units (firms). Although this concept has frequently been categorized as a change in production technique, it really is a form of economic integration. The "division of labor" process is an increase in the degree of specialization of the factors (in Smith's case, labor) of production. But from a more general

perspective, this is an increase in the degree of economic interaction or integration of the factors involved.

Adam Smith had observed that ten men, specializing in different aspects of pin-making, produced 48,000 per day. He deemed this to have been a far greater output than the few pins per day which would have been produced if each man made the entire pin. Simplifying this example for purposes of exposition, assume that there are four workers, A, B, C, D. Assume also that the pin-making process is divided into four phases - stretching the wire, cutting it, pointing it, capping it. In the case where workers are not integrated and they each produce the complete pin, it is reasonable to expect each man to produce a maximum of 15 per hour. So the four men together may produce 60 pins per hour. On the other hand, if the workers integrate their efforts through "division of labor, then A should be able to stretch 20 pin lengths per minute, B should be able to cut as many per minute, C should be able to point at least half as many per minute, and D should be able to cap 10 per minute. The group, as a whole, should be able to produce 600 pins per hour. Table II-1 illustrates these results.

Adam Smith did not thoroughly explain this phenomenon but he did hold the view that the "division of labor," functional specificity, leads to increased labor productivity and greater output. This in turn leads to an increase in the size of the population and an expanded market. If the socio-economic institutions fulfilled their roles, then the larger market would encourage capital formation, new productive techniques, new products and more production. Thus, Smith differed in his thinking with many of the political economists of his era. He envisioned the economy as being capable of developing beyond a subsistence level, stationary equilibrium by means of specialization (economic integration).

TABLE II-1

PIN PRODUCTION

	Non-integrated Production	Integrated Production
A's output per hour	15 pins	1200 stretched pin-lengths
B's output per hour	15 pins	1200 cut pin-lengths
C's output per hour	15 pins	600 pointed pin-lengths
D's output per hour	15 pins	600 pins
Total output per hour	60 pins	600 pins
Average output per hour	15 pins	150 pins

The predominant concept of economic development by the classical economists was that through a process of capital accumulation, the economy would approach a state of subsistence level equilibrium. Income gained prominence as a measure of wealth, and the increase of wealth was regarded as economic development. The means of developing was to be found in production, which was regarded as dependent on the size of the labor force, the stock of the capital, the availability of "land" and the level of technology. This last factor, the tool of the entrepreneur, was regarded as highly sporadic and so was not given the attention it deserved.

The crux of this dismal developmental concept was the "iron law of wages". This Ricardian concept was determined by the availability of capital. If capital accumulation occurred then the "wage fund", the sum of wages, would increase above the conventional subsistence wage level. This relative prosperity would encourage an increase in the size of the population. In time, this would increase the labor force and lower real wages to the subsistence level once again. Should the process have started with an arbitrary increase in population, then the farmers would have been forced to bring less productive land into use. This would give rise to diminishing returns in the agricultural sector. The owners of fixed factors would experience a decline in the returns to such factors and, accordingly, reduce their investment. This would lead to a decrease of the "wage fund" and the average wage. This lowering of the wage rate would prompt labor to reduce the population growth rate in an attempt to return real wages to the subsistence level.

Adam Smith held that the wealth of a country could be increased through trade. Trade would occur where trading partners had an "absolute advantage" in the production of one commodity. In other words,

a commodity would be produced by (and exported from) the country experiencing the least real cost under conditions of free trade. An example is given in Table II-2. Assume a two-country (A,B), two-commodity (Q_1, Q_2), one-factor (labor) world. Country A requires 90 and 100 units of labor to produce one unit of Q_1 and Q_2, respectively. Country B requires 108 and 90 units of labor to produce one unit of Q_1 and Q_2 respectively. Country A has an "absolute advantage" in the production of Q_1 since its labor is 1.2 times more productive than B's. Country B has an "absolute advantage" in the production of Q_2 since its labor is 1.1 times more productive than A's.

The implication of this is that A would export Q_1 and import Q_2 from B, while B would export Q_2 and import Q_1. This economic interaction between countries would result in each country improving its social welfare providing welfare is not a function of the exported commodity alone. Figure II-1 illustrates the case of Country A. The commodity exchange ratio before trade is ab. Postulating some welfare function (W_1) yields a social optimum point, C. Because of trade with B, A increases its commodity exchange ratio to be. This yields the socially optimal point d on the higher welfare function, W_2.

In the situation where one country, A, has the "absolute advantage" in both commodities then trade between the countries would not occur. The belief was that such a situation would yield no gains to A. This case is shown in Table II-3. It is clear that A has the "absolute advantage" in the production of both Q_1 and Q_2. Furthermore, A is 1.2 and 1.1 times more productive than B in Q_1 and Q_2, respectively.

It became increasingly obvious that "absolute advantage" was insufficient in explaining why a significant volume of trade was conducted among countries other than the least cost producers. This must have

TABLE II-2

LABOR PRODUCTION I

	Production of one unit of:	
	Q_1	Q_2
Required labor hours, Country A	90.0	100.0
Required labor hours, Country B	108.0	90.0
Labor productivity ratio, A/B	1.2	0.9
Labor productivity ratio, B/A	0.83	1.1

FIGURE II-1

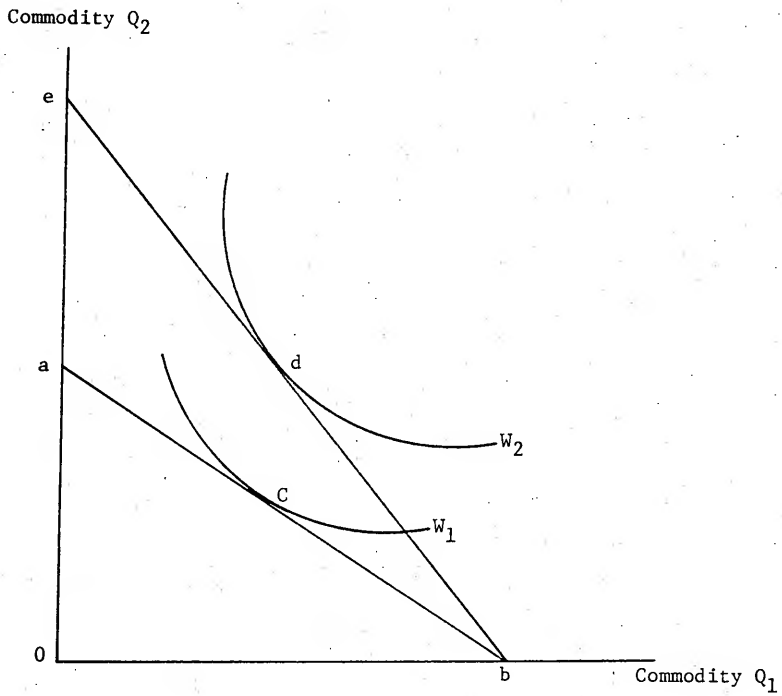


TABLE II-3

LABOR PRODUCTION II

	Production of one unit of :	
	Q_1	Q_2
Required labor hours, Country A	90.0	100.0
Required labor hours, Country B	108.0	110.0
Labor productivity ratio, A/B	1.2	1.1
Labor productivity ratio, B/A	0.83	0.91

given rise to the "comparative advantage" concept long before David Ricardo formalized it (Brandis, 1967). Ricardo, using his famous Portugese-wine English-cloth example showed that what is important in international trade are cost-ratio comparisons and not cost comparisons. Returning to the example in Table II-3, it was stated this represented a "no trade" situation under "absolute advantage" conditions. However, under the "comparative advantage" concept, Country A would export Q_1 and import Q_2 from Country B.

Table II-4 is a conversion of the information in Table II-3. It is obvious that Country A is the more efficient producer of Q_1 and Q_2. Within its boundaries, Country A exchanges one unit of Q_1 for .9 units of Q_2 and one unit of Q_2 for 1.1 units of Q_1. Country B's domestic exchange rates are one unit of Q_1 for .98 units of Q_2 and one unit of Q_2 for 1.02 units of Q_1. Therefore, if A exports Q_1 to B, where it is exchanged for 0.98 Q_2, then A realizes a gain of 0.08 Q_2 - the difference between the foreign trade exchange rate and the domestic exchange rate. This "comparative advantage" result is quickly discerned from the Labor Productivity Ratio, Table II-4. The I-1 figure for Country A reveals it is relatively more efficient than B in producing Q_1. Likewise, the .98 figure for Country B reveals it is relatively more efficient than A in producing Q_2.

The "comparative advantage"concept was a significant breakthrough but it also was insufficient. More modern approaches have been taken with respect to this concept (Heckscher, 1919; Ohlin, 1933; Viner, 1937; Myint, 1958; Linder, 1961; Bhagawati, 1964). Elimination of the labor theory of value from the concept and incorporating other factors of production in the analysis was a major improvement. Returning to the two-country (A,B), two-commodity (Q_1, Q_2)

TABLE II-4

LABOR PRODUCTIVITY RATIOS

	Country A	Country B
Labor productivity ratio, Q_1/Q_2	1.1	1.02
Labor productivity ratio, Q_2/Q_1	0.9	0.98
Output of Q_1 per labor hour	0.01111	0.00925
Output of Q_2 per labor hour	0.01	0.00909

world, consider the linear transformation curves, bd and gi, and the hypothetical welfare maximization points, e and j, of both countries prior to any sort of economic interaction (figure II-2 and II-3). Country A produces oc of Q_1 and oa of Q_2. Country B produces o'h of Q_2. Total world production without any economic integration is oc + o'h of Q_1 and oa + o'f of Q_2. For analytical convenience, figure II-3 is inverted and placed on figure II-2 to form an Edgeworth Box (figure II-4).

If economic integration begins to take place and Country A specializes in producing Q_2, then total world production of Q_1 and Q_2 will increase. Referring to figure II-4, total Q_1 produced in "isolation" from this yields ch' - the increase in world production of Q_1 due to specialization and trade. Total production of Q_2 equals o'g. Subtracting the total production of Q_2 in "isolation" yields a fa' - the increase in world production of Q_2 due to specialization and trade. The benefits of economic integration, as opposed to isolation, are demonstrated to a certain degree by this analysis. However, the actual distribution of these gains depends on the strength of demand in A and B as it affects the exchange ratios. Although this analysis assumed constant opportunity cost, which enabled complete specialization, the general conclusions are the same in the case of increasing opportunity costs-concave transformation curves. (Walter, 1968, pp. 62-63).

Eli Heckscher and Bertil Ohlin reworked the "comparative advantage" concept to emphasize factor endowment and intensity of usage rather than differing international productivities. Their basic tenet was that the country with a relative abundance of a particular factor of production would use this factor more intensively in the production of commodities. Such commodities would then be exported to countries with a relative scarcity and high cost of this factor. Thus, the United States, thought

FIGURE II-2

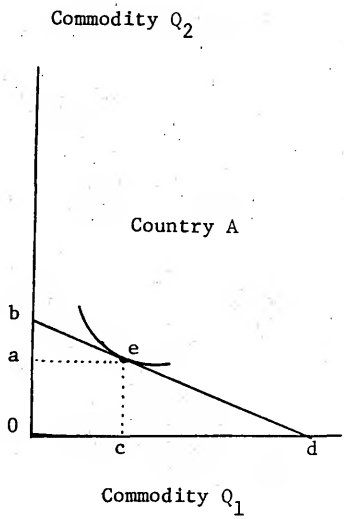


FIGURE II-3

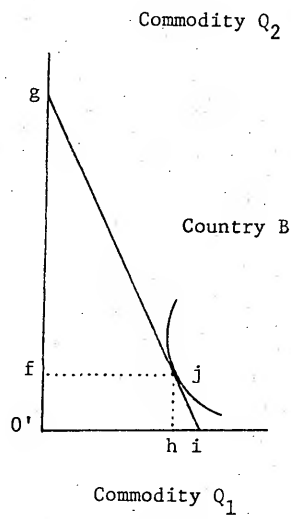
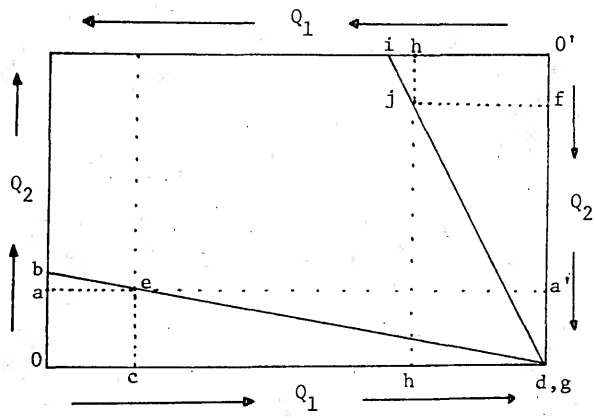


FIGURE II-4



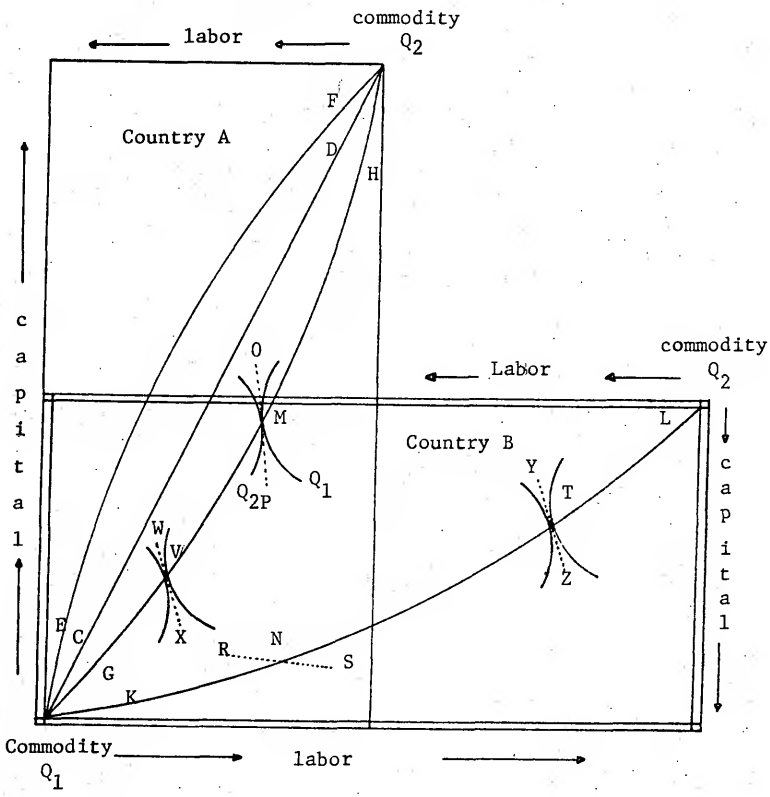
to be a capital-intensive country, should export capital-intensive goods and import labor-intensive products.

The rationale behind this and its economic growth implication are demonstrated with the aid of figure II-5. The "double" Edgeworth Box figure represents a two-commodity (Q_1, Q_2), two-factor (labor, capital), two-economy (A, B), world. The curves Q_{ij}, are production isoquants of the i-th commodity at the j-th level of output. The line, CD, is the Optimum Efficiency Locus and passes through the point of tangency of the Q_1 and Q_2 production isoquants. CD represents the case of both goods utilizing both factors in equal proportions. The curve, EF, represents the situation where Q_1 is capital-intensive and Q_2 is labor-intensive. The curve, GH, represents the case where Q_1 is labor-intensive and Q_2 is capital-intensive.

Assume that Country A, the single-edge box, is capital abundant relative to Country B, the double-edge box. Assume also that GH and KL are the Optimum Efficiency Loci of countries A and B, respectively. The implication of this is that both countries, before any economic interaction produce the labor-intensive good Q_1 and the capital-intensive good Q_2. Assume that Country A produces the combination represented by point N. The relative marginal products (relative returns) of labor and capital are given by the slopes of the common tangents (OP, RS) to the isoquants at points M and N. The slope of OP, for instance, is equal to the marginal product of labor divided by the marginal product of capital in Country A. In labor-abundant Country B, the slope of RS reveals that the returns to labor are low relative to that of capital. OP reveals the opposite about Country A.

Upon engaging in trade with Counrty A, Country B begins to specialize in and export Q_1, the labor-intensive good. Country A moves along its Optimal Efficiency Locus, GH, to point V. International trade will grow

FIGURE II-5


labor
commodity
Q_2
Country A
F
D
H
capital
O
M
Q_1
Q_{2P}
W
V
X
E
C
G
K
R
N
S
Labor
commodity
Q_2
Country B
L
Y
T
Z
capital
Commodity
Q_1
labor

until points T and V are reached. At these points, the slopes of the tangents, WX, YZ, are equal, implying that the prices of Q_1 and Q_2 are equal in both countries. Also, assuming no transportation costs and technological differences, returns to the relatively abundant factor have increased while returns to the relatively scarce factor have diminished. This results in the equalization of the ratios of factor returns and factor intensities in the production of both goods in A and B.

W. Leontief, I. Kravis and G. MacDougall empirically tested the Heckscher-Ohlin theory. The results did not verify it. In fact, Leontief's testing of the theory in the case of the United States showed that this apparently capital abundant (high captial-labor ratio) country was exporting labor-intensive commodities (Leontief, 1953). The theoretical expectation is that capital abundant countries would specialize in capital-intensive exports and labor abundant countries would specialize in labor-intensive exports. Several explanations have been advanced in an attempt to explain the inconsistency. One of the better explanations, which also happened to be most pertinent with respect to development, is that the theory ignores demand.

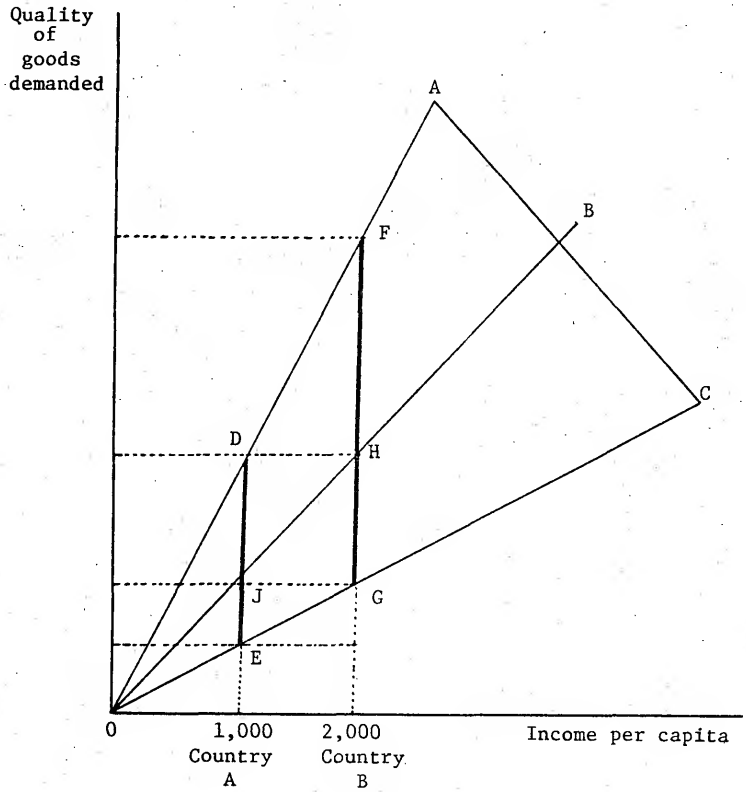
In 1961, S. Linder attempted to explain the role of demand in international exchange. He states that it is the similarity or dissimilarity of "demand patterns" between countries which determine the direction and extent of trade. He distinguishes between "internal" and "external" demand, the former being domestic demand and the latter being foreign demand. Prior to developing an export industry, a country must develop a strong "internal demand" for the product. Each country, depending on its "stage of development", possesses a range and pattern of products. Countries at the same "stage of development" tend to possess similar demand ranges and patterns. Based on this, trade will most probably occur

between "similar" countries. Furthermore, the range and quality of commodities increases directly with per capita income.

Figure II-6 demonstrates Linder's theory. Line OB represents a trend curve which relates quality and range of goods demanded to per capita income. The triangular area, OAC, represents the increase in the range of products demanded as per capita income increases. The line DE is the range of a Country A with per capita income equal to $1,000. Country B's range is FG and its per capita income is $2,000. In the lower income country, A, there is no demand for the quality goods in FH portion of Country B's range. Likewise, the higher income country, B, has no demand for the lower quality goods in the JE portion of A's range. Therefore, trade will occur only in the DJ or HG range of demand. Thus, the greater the income difference between countries, the narrower the possible range of tradeable goods. The conclusions to be drawn from these arguments are that demand does play an important role in determining the gains from economic interaction and that such interaction is enhanced as the socio-cultural differences between societies' taste-patterns diminish.

Returning briefly to the classical period, there is another theorist whose work began many a revolution. This is the German, Karl Marx. Marx's thinking was primarily "classical" and he strongly held to the labor theory of value. Like Smith, his main concern was development. He regarded the entrepreneur as very important to capitalist economic growth becauce he, the entrepreneur, was the source of technological change. Technological change drove the system by providing the opportunity for profitable investment. Both Marx and the Classicalists viewed technological change as the means of preventing the rate of profit from falling. However, Marx held that an increase in investment, brought about by techno-

FIGURE II-6


Quality of goods demanded
A
B
C
F
D
H
J
G
E
0
1,000
Country A
2,000
Country B
Income per capita

logical change, would temporarily increase employment but each addition to the stock of capital would tend to swell the "reserve army" of technologically displaced workers. Further, for investment to be worthwhile, aggregate consumption must increase to absorb it. But Marx points up a contradiction: consumption is a direct function of the Wage Fund which is being squeezed in order to increase profits.

One way out of the dilemma is, as England, France and others did, to integrate the economy with others. This was done in such a manner, that the metropolitan country remained the dominant power in the relationship. In one word, this escape was colonialism. The mechanism through which this worked was stated as follows: The decline in profits was due to diminishing returns to land and fixed factors as Malthus had stated; capitalists could either squeeze the Wage Fund in order to maintain the rate of profit or they could seek to improve the availability and quality of fixed factors; economic annexation of the land and resources of colonial possessions was the application of the second alternative ; diminshing returns were staved off and the desired rate of profit was attained.

Besides this concrete view of development, Marx did have a more general view which rose directly from his dialectical materialism. He perceived history as being determined by the reality of having to produce to satisfy society's material demands. The actual producers were not usually the owners of the means of production. This condition placed the worker in an exploitable and subservient position - partician versus plebian, lord versus serf, capitalist versus proletarian. This social condition would result in class conflict which would end in a reconstruction or obliteration synthesis of that society. Marx theorized that the dialectical process would lead society on a developmental path through stages of primitive communism, feudalism, early capitalism,

advanced capitalism, dictatorship of the proletariat and classless socialist society. Each stage would be marked by increased economic prosperity.

Marx's concepts have been critiques from a variety of perspectives. His work has been challenged on the grounds that it fails to recognize capital-saving technological change and the potential of labor unions. From an empirical stand point, B. Higgins has stated:

> ... the countries that have gone Communist have not been those in which capitalist development has been most advanced but those in which it has lagged.
> (Higgins, 1968, p. 85).

In terms of this essay, it should be noted that Marx makes two connections between economic integration and development. The first, mentioned earlier, is the colonialism-trade "escape" mechanism. The second, is the integration of socio-economic classes within society, culminating in the fully integrated socialist state. Since integration is usually associated with the smooth transition from one set of relationships to another, Marx's dialetical process may appear to be in conflict with this interpretation. This is not necessarily true according to certain social scientists such as H. Ian Hogbin (1958). Hogbin has identified social contact as one of the causes of social change. He theorized that such transitions from one social form to another occur relatively quickly, which would be in keeping with the Marxian concept mentioned above.

Thomas R. Malthus viewed economic growth as occurring from increasing returns to capital, increasing returns to scale and technological change. The latter, he regarded as spurious and only of temporary effect. The basic problem stemmed from his belief that the birth rate was influenced neither by the level of income nor the death rate. Thus, decreasing real wages did not prompt a decline in the population growth rate. Since there

was a natural limit to the rate of capital accumulation and since technological change was not dependent on capital accumulation or population growth, then per capita income would decrease as diminishing returns to land or labor occurred. The conclusion that Malthus drew from this - social misery because of decreasing food supply per capita - earned economics the reputation of being "the dismal science".

H. Leibenstein (1954) developed a theory of economic growth along similar lines. He theorized that an economy could be divided into an agricultural and an industrial sector. This dualism was not evident to Malthus. Technological change was confined to the industrial sector. Investment in the agricultural sector occurred until diminishing returns to land set in. Investors would then shift their portfolios to the industrial sector which was less land-using. Before long however, diminishing returns to labor would occur, as Malthus theorized, unless there was technological change in the industrial sector to absorb the increasing labor supply. Leibenstein concluded that a "big spurt" in the rate of investment or technology was necessary to raise the economic growth rate above the population growth rate in order to pull economies out of the Malthusian trap.

Empirical evidence does not support these theories. R. Nelson (1960) and I. Adleman (1963) tested these theories and were unable to find empirical verification of them. However, in the process of doing this, Nelson rigorously specified the conditions which would result in an economy being caught in the "Malthusian trap". These conditions were The inability to transform additional income per capita into additional investment per capita; the existence of a preference for production mehtods which were relatively less efficient, and the relatively scarcity of arable land. These last two conditions are alterable in the

case of international economic interaction, including multinational corporate expansion and the migration of labor.

Between the late nineteenth and early twentieth centuries attention was focused away from the development question. The Neo-classical school took root and with it came a renewed emphasis on capital accumulation as the prime factor in economic growth. Alvin Hansen represented this type of thinking.

It was held that capital accumulation was necessary to meet increased labor needs, allowing for no change in production techniques. Physical capital was distinguished from intangible capital. The former was defined as the stock of produced goods at a point in time, utilizable in the production of other goods. The latter was defined as the enhancement of labor such as the acquisition of knowledge or skills. Intangible capital was not calculated in the various measurements of the capital stock. It was theorized that actual output was a direct function of investment - net additions to the physical capital stock. Investment was regarded as comprised of investment by the private sector and investment by government. Hansen believed that economic growth, defined as an increase in per capita income over time, could come about in three ways: One, a change in government policy to bring about an increase in government investment, two, a redistribution of income to those with a higher marginal propensity to consume - this would increase the private investment coefficient; and three, a reduction of taxes - this would also increase the private investment coefficient.

Roy Harrod, very much entrenched in Neo-classical thought, developed a dynamic model which was so attractive that it was immediately adopted to development analysis. He attempted to explain the determination of the optimal and actual rates of capital accumulation. Capital require-

ments (K_r) are a proportion of income (Y) that must be saved and invested in order to maintain a given rate of increase of income. This assumed that technological change and population growth remained constant, and that the labor force was a constant proportion of the population. His basic growth model is derived thus: Capital is directly related to output (equation II-1);

(equation II-1) $K = kY$

and differentiating

(equation II-2) $dK = kdY$

and by definition, dK equals investment.

Savings (S) is also directly related to income

(equation II-3) $S = sY$

Under Neo-classical conditions, ex post savings equals ex post investment. Therefore, in equilibrium,

(equation II-4) $sY = kdY$

And economic growth (g) is

(equation II-5) $g = dY/Y = s/k$

Harrod defined the concept of a "warranted growth rate" (g_w) as the rate of growth desired by entrepreneurs. Its derivation is similar to that of the actual growth rate (g). The major differences are in equations II-1 and II-2. The required capital coefficient (k*) may be different from the actual capital coefficient (k). Thus, the equations may be rewritten,

(equation II-1a) $k_r = k^*Y$

(equation II-2a) $dK_r = k^*dY$

(equation II-4a) $sY = k^*dY$

(equation II-5a) $g_w = s/k^*$

In Harrod's "steady-growth" equilibrium, actual growth and warranted

growth rates are equal. The implication is that the actual and required capital coefficients are equal in equilibrium. In equation format,

$$g = g_w \quad \text{and} \quad k = k^* \text{ in equilibrium.}$$

In the case of the actual growth rate exceeding the warranted growth rate, then actual capital is less than desired capital. Entrepreneurs will react by increasing capital requirements in order to maintain increased output levels. But this only aggrevates the divergence, causing actual growth to exceed, even more, warranted growth. Without structural change, this system is explosive once there is a divergence from the equilibrium path.

Harrod defined the concept of a natural rate of growth (g_n) as the increase in output at full-employment, assuming as constant the rates of population increase and technological process. If the population growth rate should decline, then the natural rate of growth would be less than the warranted rate of growth. Actual capital would be less than required capital and consequently the economy explodes downwards. In equilibrium, the three growth rates are identical.

International trade was incorporated in Harrod's theory by a balance of trade factor, dB/Y,

(equation II-6) $$g = dY/Y + dB/Y$$

So in the case of underemployment, where the natural rate of growth is less than the warranted rate of growth, a favorable balance of trade would aid in reducing the deflationary gap. An adverse balance of trade would aggravate the explosive trend, and a zero balance of trade would have no effect on the system, all else being equal. This is the most important role of economic integration in Harrod's model. There is also the possibility that stability would be less tenuous if economic integration fostered more flexible capital-output and labor-output ratios.

Harrod's name is usually associated with that of Evsey Domar. The fact is that the implications of their work were similar but not identical. Harrod's emphasis was on the conditions which would satisfy entrepreneurs' investment portfolios so that they would not be changed. Domar's emphasis was on the required growth rate of income which would guarantee stable prices and the full employment of capital and labor.

Domar theorized that aggregate demand was equal to investment times the inverse of the marginal propensity to save. Aggregate output was equal to capital times the incremental output-capital ratio, a constant. In equilibrium, aggregate demand is equal to aggregate supply which results in the growth rate of income being equal to the growth rate of investment. Investment accomplishes two things, it increases output as well as grants a certain level of income.

Domar's model is identical to Harrod's when the warranted and natural rates of growth are equal in the latter. This is primarily because Domar did not incorporate a population growth rate in his model. In terms of development, Kurihara and Hamburg have pointed out that these models are analytically weak. They do not account for disguised unemployment, for entrepreneurs satisfied with a less-than-full-employment situation, and for flexible capital-output ratios. Furthermore, their "steady-growth" reasoning is tenuous because wages may be significantly higher or lower than interest rates and so affect factor-utilization, entrepreneural profit expectations may be inconsistent, and technological change may not be constant and neutral.

The nineteenth century saw three major "stages" theories put forth by List, Hildebrand and Schmoller. List theorized that society progressed through four socio-economic stages. The first stage is that of a typical

"pastoral" life-style with each individual family unit fairly self-sufficient. The second stage is that of a "peasant" life-style marked by an attachment to the land and basic subsistence agriculture. The third stage is the introduction of light manufacturing and large scale agriculture. A significant portion of agricultural production is marketed at this stage. The fourth stage is the occurrence of largescale and well organized agricultural production, light and heavy manufacturing, and a rapid development of commercial activity. This schema, among other things, shows that each developmental stage is marked by increased economic interaction between households or individuals in the economy. The final stage particularly emphasizes the development of commercial institutions (markets, banking, etc.) which facilitate the economic integration of the society.

Bruno Hildebrand proposed a three-stage theory. The first stage consisted of a socio-economic system marked by "natural exchange" or barter. The second stage was the monetization of the system. This is theorized to be a natural result of increased exchange activity. The third stage, is marked by the development of credit and credit institutions. Although it is difficult to see this stage in the light of increased economic integration, it is clear that such a stage is conditioned by the degree of economic integration within society.

Gustav Schmoller believed that development takes place in four stages. The first stage is illustrated by a manorial or village type of social organization. Economic interaction is rigidly fixed along traditional socio-cultural patterns and is usually coordianted by central figures. The second stage marks the transition from the village society to the urban society. Here, agricultural pursuits decrease, and people become more specialized occupationally. This leads to increased economic inter-

dependence. The third stage is marked by regional or "territorial" organization of political and economic institutions. The fourth stage is that of "national" political and economic organization. Specialization is extended to the regional and national levels - very similar to Ricardian thought. As this occurs, economic interdependence, and therefore economic integration, develops within a nation-state and within the world.

Clark, Sombart and Rostow were the major twentieth century "developmental-stage" theorists. Colin Clark postulated a three-stage process. The first stage is the pre-capitalism stage. In this stage society is primarily agrarian and manorial. Technological change is minimal and dominated by tradition. Production is generally small-scale and of a handicraft nature. Economic interaction is limited to socially established patterns, the control of which is in the hands of local institutions. Regional and national economic institutions are generally lacking. The second stage, early capitalism, occurs as light manufacturing and non-farm enterprise grows relative to agriculture. Increased urban economic activity takes place encouraging non-farm investment as well as technological change. The third stage, full capitalism, is the occurrence of a competitive economy with Smithian attitudes of profit motivation, laissez-faire and specialization. The "service" sector of the economy develops. Generally, economic interaction is the most intense in this stage as economic integration barriers are broken down on a national basis.

Werner Sombart, writing in 1927, proposed a similar "developmental stages" theory. His first stage is feudalistic in nature with local guilds, cultural institutions, and manorial lords determining the pace and scope of economic activity. He theorizes that it is not until the lords (or owners) of rural and urban land begin to accumulate capital

that larger-scale enterprise develops. This is the second stage. Its chief characteristics are increasing rates of capital accumulation and technological change. This change in the rate of capital accumulation occurs not on the local level of social organization, but rather on the nation-state or international level. Sombart uses the Holy Roman Church, the Medicis, and Fuggers as examples.

His third stage is the occurrence of a capitalistic society driven by its own spirit of capital accumulation. This closely parallels Weber's thesis. In this stage, the economy approaches a national system, capable of supporting investment and continuous technological change but lacking an attitude of social concern. In other words, there is increasing probability of a divergence between private and social costs. Like Clark, Sombart shows evidence of development (as he defines it) being associated with increasing economic integration.

W. W. Rostow, stimulated by Simon Kuznets' Secular Movements in Production and Prices (1930), developed a five-stage theory of economic growth. The five stages are: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high-mass-consumption. The first stage, the traditional society, is characterized by "pre-Newtonian" science and technology, low productivity, rigid social structure and a predominantly manorial socio-economic system.

The second stage, the preconditions for the take-off, is characterized by the following: The increasing application of modern science in agriculture and manufacturing; the widening of markets both nationally and internationally, the acceptance of the idea that economic progress is a means of obtaining socio-cultural ends, the appearance of entrepreneurs, increasing investment in infrastructural pursuits, and the political centralization of the country. It is evident that this stage is

distinguished from the previous one by increased socio-economic integration. "Localized economies" begin to fuse into larger national entities. The individual components of the system begin to interact with a greater proportion of the total components of the system.

The third stage, the take-off, is characterized by a complete change in social structure with the modernization of agriculture being prominent. As Rostow states,

> The take-off is the interval when the old blocks and resistances to steady growth are finally overcome. The forces making for economic progress, which yielded limited bursts and enclaves of modern activity, expand and come to dominate the society. Growth becomes its normal condition.
> ... During the take-off, the range of effective investment and savings may rise from, say, 5 percent of the national income to 10 percent or more; although where heavy social overhead capital investment was required to create the technical preconditions for take-off the investment range in the preconditions period could be higher than 5 percent, as, for example, in Canada before the 1890's and Argentina beofre 1914.
> (Rostow, 1970. pp. 7-8).

Apparently, economic integration does not increase in this stage but the velocity or speed of flow of economic activity seems to increase. This is particularly evident in Rostow's frequent reference to the "compound-interest effect" which capital accumulation and technological change seem to exhibit during this period.

The fourth stage, the drive to maturity, is characterized by the following: An investment-output ratio of 10 percent to 20 percent, an overall maintenance of the progressive-modernization drive begun in the previous stage, the take-off of new enterprises and the levelling-off of older ones, the adjustment of older socio-economic institutions or the establishment of new ones to support the growth process, and the spread of modern technology throughout the economy. Rostow estimates the length of this stage to be about forty years. The degree of economic integration

increases in this stage as sectors of the economy are linked together in order that the diffusion of technology takes place. Institutions are integrated to the extent that they are able to function together for the attainment of the society's growth objective.

The final stage, the age of high-mass-consumption, is marked by relatively high per capita income, increased urbanization, increased social welfare services, decreased proportion of the labor force engaged in manual labor, and increased consumption (and production) of commodities which transcend basic food, shelter and clothing. Rostow says, concerning his fifth stage,

> The emergence of the welfare state is one manifestation of a society's moving beyond technical maturity; but it is also at this stage that resources tend increasingly to be directed to the production of consumers' durables and to the diffusion of services on a mass basis, if consumers' sovereignty reigns.
> (Rostow, 1970, p. 11)

Although no direct reference is made to economic integration in this stage, it implicitly assumes a fair degree of cultural and economic integration in order to exhibit mass consumption and production as well as socially acceptable welfare schemes.

Certain institutional approaches have also been taken regarding the economic development problem. Weber and Tawney's approach is perhaps the most prominent. Max Weber, in 1904, put forth the thesis that the Reformation provided the atmosphere for the sixteenth century development of captialism. He held that the acquisition of wealth was an innate desire of Man which was restricted by Thomistic laws on usury, profit and wealth. It was not until Martin Luther redefined the concept of "vocation" that material prosperity and profit-seeking became respectable in Western Society's eyes. Weber concludes that it is the rise of this

new secular society which brought about the development of capitalism and the rapid growth of Western economies.

R. H. Tawney reworked Weber's thesis so that it would give more prominence to Calvin because he preached that by predestination the capitalist was ordained to accumulate wealth. Luther, on the other hand, never went that far and, in fact, did avow frugality despite his reformist stance. Tawney also viewed Calvin as justifying the profit-motivated squeeze on wages when he preached that the laborer, if his predestined vocation be such, was to seek salvation in work and poverty. Thus, any increase in the productivity of labor would accrue to the owners of capital. Tawney added that the development of Capitalism and, one might add, the development of capitalist economies, was a process which was long in the making and the Reformation merely provided the availability of large scale commerce and finance.

Although there are no explicit references to economic integration it is possible to deduce that Weber and Tawney, particularly the latter, did have integrative concepts in mind. With the coming of the Reformation, the realm of the "sacred" was fully integrated with that of the "secular". The wealth of the "chosen ones" could be integrated with the sweat of the "less fortunate" to amass more wealth. In other words, the craftsman became far more productive because he could utilize the capital of the wealthy, even though he would have to pay dearly for this privilege. In previous times he would have had to rely on his father's capital (tools, etc.) or start from scratch to make his own.

Joseph Schumpeter's Theory of Economic Development (1911), although couched in Neo-classical terms, is primarily of the "institutional" variety because of its reliance on the entrepreneural factor. The entrepreneur is the driving force behind economic development for it is he who

recognizes and seizes opportunities for introducing new techniques, production systems, commodities and productive resources. He need not be inventor, investor or discoverer but he initiates and organizes new economic ventures.

The rate of technological change (as well as innovation) and natural resource utilization is a direct function of the supply of entrepreneural ability within the economy. This supply, in turn, is dependent upon the "social climate" and rate of profit. Schumpeter used the distribution of income as a proxy or indicator of "social climate". He believed that the more equally distributed income was, the more amenable would be the educational system, social attituded and class structure toward economic activity. Given such conditions, entrepreneurs would seize opportunities motivated by the initial existence of monopoly profits. Gradually, others would enter the market, thereby reducing economic profits to zero but spreading the "innovative" change throughout the economy. Schumpeter theorized that such activity would have been initially financed through monetary expansion but subsequent investment would have been financed by income generated savings.

Schumpeter was careful to distinguish between the latter type of investment, which he called induced investment, and autonomous investment. Induced investment was specified as a function of profit, income and interest. It varied directly with profits and income, but inversely with the interest rate. Autonomous investment, he theorized, was dependent upon technological change, natural resource discovery and the entrepreneural climate. Economic integration is not considered, except as far as it would enhance the entrepreneural climate, placing more resources and fewer barriers at the entrepreneur's disposal.

Morris and Wood (1971) reiterated Schumpeter's theory, except that they placed it in an updated framework. Clifford Geertz (1963) supported Schumpeter's arguments but broadened it to include more socio-cultural features. He stated that a wide range of cultures can generate "entrepreneurship" and economic development. He defined the important factors as the following: One, entrepreneurship or innovative economic leadership occurs in any well defined and socially homogeneous group - in other words, any socio-culturally integrated group; two, such homogeneous groups ought to have crystallized out of larger traditional groups with a history of extra-village status and inter-local orientation; three, the traditional groups underwent (and are undergoing) integrative changes with respect to their social milieu; four, the homogeneous groups individually view themselves as exemplary within the context of a degenerating society, five, the major function of the entrepreneur is organizational rather than technical, adaptive rather than inventive. Thus economic development is viewed as a socio-cultural phenomenom with integration playing a central role.

Charles Erasmus and Norton Ginsburg would disagree with Geertz. Erasmus views economic development as dependent on technological and economic factors, and only secondarily dependent on cultural factors. He explains away a lot of the so-called cultural effects of manifestations of technological lags - production techniques lagging behind changes in concepts of improving social welfare.

Norton Ginsburg, the geographer, views economic development as primarily a function of natural resource endowment. He argues that such endowment not only enables development in its own right, but also fosters the accumulation of capital. He states,

The significance and functions of natural resources

> in economic development will differ markedly with the stages in the developmental process. Under normal circumstances the role of the resource endowment is most important in the earlier stages of economic development, when it acts as a means for capital accumulation and an accelerator for economic growth if abundant, and as a depressant upon that growth if niggardly.
>
> (Ginsburg, 1957. p. 212)

Although Ginsburg falls into the trap of viewing only the supply side of the problem, he does seem to indicate that access to natural resources, whether by territorial integration or technological improvements, does play an important role in development.

The foregoing does not exclude Geertz's thesis. In fact, recent work in the area of economic development grants increasing importance to the socio-cultural factors. The Harvard University Program on Technology and Society made the following statement in reference to this matter:

> The answer would seem to lie in some sort of 'soft' determinism: To be sure, which technologies are developed and applied depends on institutions and values prevalent in society at any given time; but technological innovation provides society with new capabilities, and not all of its consequences can be foreseen at the time the decision to develop the technology is made.
>
> (Harvard University Program on Technology and Society, 1972, p. 27).

J. L. Sadie holds a similar view, conceiving economic development as the transformation of a society's economy as well as its structural institutions. He theorizes that the developmental process is initiated exogenously when cultural contact is made with an industrialized system or society. As mentioned previously, this is a form of integration. The less developed society imitates the advanced one in much the same manner as Duesenberry postulated in his "demonstration effect" (Duesenberry, 1948). The process continues with the expansion of monetary and trading

institutions and the emergence of a class of businessmen. Here, a greater degree of inter-society integration takes place.

Cultural traditions still prevade the society and force failure upon innovative changes. A strong dependence upon government grows as well as the trend toward "white-collar" education. Sadie sees this as a socio-psychological process which, if development is to take place, must be broken quickly and systematically.

Ralph Linton (1964) also emphasizes the socio-psychological factor and the importance of cultural contact. Perhaps, the more important work to date in this area is that by McClelland and Hagen. McClelland theorizes that societies with high levels of "n-achievement" will produce more energetic entrepreneurs, who, in turn, will produce a faster rate of economic development. His "n-achievement" score of an individual is the summation of the number of instances of achievement "ideas" (or images) and their sub-types. The group score is obtained from a measure of central tendency of the individual scores. He tested the correlation between these scores and a kilowatt hour production growth rate (electricity) and discovered that the correlation was significant.

McClelland's thesis has several failings, the most prominent are that he fails to estabilsh the relationship between "n-achievement" and "entrepreneurship", and that his correlation - "n-achievement" and electricity production - does not define the relationship. In other words, development could be the cause of increased electrical output rather than the other way around. One point not to be overlooked is the growth of electricity output as an indicator of economic integration in two ways: The first is that electrical output represents an increase in industrial potential which would lead to increased specialization and economic inter-

action; the second is that increased electrical output may represent an urbanization trend with increased travel and communications, which is none other than the internal integration of society.

Everett Hagen approaches the development question from a multi-disciplinary point of view. He utilizes McClelland's "n-achievement" psychological measure (McClelland, 1962) and Riesman's thesis (Riesman, 1950) that society consists of two basic personality types.

Hagen's primary premises are that societies are dual - peasants and elites - or plural - peasants, elites and trader-financiers; and that

> ... economic theory has rather little to offer towards an explanation of economic growth, and that broader social and psychological considerations are pertinent.
>
> (Hagen, 1962. p. 8)

economic development, which he equates with social change, is dependent upon changes in material culture (technology) and "personality". He makes it clear that "personality" and social structure are related in such a way that social change will not occur without "personality" change. A traditional society, prior to entering upon economic development, is uncreative, for its members perceive the world as an arbitary place and are dependent upon ascriptive authority. This builds into the society an "authoritarian" social structure and the ethic of the perpetuation of the status quo.

However, as some powerful social disturbance arises, anxieties give rise to social tensions which, over generations, incite social change. Social symbols and institutions are challenged and "status respect" is withdrawn. The society's personality undergoes change from authoritarian to retreatist to innovational and then to reformational. At the same time, such changes spur on and are spurred by the discovery, acceptance and implementation of new knowledge. Such technological change is viewed

as cumulative. Thus, as "personality" and technological" changes occur, society develops. Furthermore, such changes must be indigenous although the initial may be exogeneous.

Concerning integration, Hagen appears to imply that integration of the type which occurred under European colonialism merely perpetuated the status quo of the underdeveloped areas of the world. The economies of the colonial power and her possessions were integrated but development did not occur because indigenous personality and technological changes were stifled. This latter statement may be interpreted to mean that the various socio-cultural groups comprising the colonial economic complex were deliberately not integrated with the result the status quo was preserved - socially culturally and economically.

Hagen's work leads rather well into the "dualism" theories of development. One of the early researchers in this area was J. H. Boeke. He claims,

> Social dualism is the clashing of an imported social system with an indigenous social system of another style. Most frequently the imported social system is high capitalism. But it may be socialism or communism just as well or a blending of them.
>
> (Boeke, 1953. p. 4)

Dualistic economies will remain in such a state despite foreign and domestic intervention because they have limited needs, a lack of organizational and business talents, relatively immobile labor and other resources, an aversion to capital, and because they are motivated by social prestige rather than profit. In other words, dualistic economies are permanently "disintegrated" or segregated and will not develop beyond such a state.

Hla Myint views the problem of dualism differently. Due to increased socio-economic integration, the more developed countries in the

world exploit the natural resources (particularly primary products) of the less developed countries. Such resoucres are usually exported. Simultaneously, social changes, such as monetization of the economy, are forced upon the people of the less developed country who are connected with the export sector. The society then becomes split between those in the "modernized" enclave, who reap benefits and investments of the foreign economies, and the remaining sector which stagnates or degenerates as the poor laboring masses cannot earn the means to increase their skills. Two biases are thus built into such disintegrating societies: One, foreign and domestic investment generally go to the more lucrative and skilled export sector; two, industries tend to be capital intensive because of lack of skilled labor despite a superabundance of labor.

B. Higgins adds to this a vicious circle argument. He states that the way to overcome the problem in the "rural" or non-modernized sector is to increase the land-labor ratio to the point where agricultural mechanization is profitable. In countries with high population densities this may be done only by transferring labor from the "rural" sector to the "modernized" enclave. But this results in an increase in the marginal product of capital which encourages the export or modernized sector biases mentioned above.

H. Singer sees "vicious circle" aspect of the dual economy as one of the most serious obstacles to economic development. It is also enhanced by the ethnocentric argument that the less developed countries are characterized by a low savings-income ratio which retards future growth, and so the cycle continues. R. Nurske (1953) and Singer (1953) propose that these obstacles can be overcome only by a "big push", co-ordinated in both sectors, to transform the economy from an eighty percent to a fifteen percent agrarian-based economy. As such transformation

occurs, productivity and real demand increases, regenerating further productivity and domestic market expansion. Involved is the integration of the two segments of the economic system and the resulting increase in industrial and agricultural specialization.

Albert Hirschman agrees with Singer's thesis that a "big push" is necessary to break out of the "vicious circle" of underdevelopment. He also places as much emphasis on complementarity as a vital aspect of the developmental transition as does Nurkse. However, he theorizes that,

> The ability to invest is acquired and increased primarily by practice; and the amount of practice depends in fact on the size of the modern sector of the economy. In other words, an economy secretes abilities, skills and attitudes needed for further development roughly in proportion to the size of the sector where these attitudes are being inculcated.
> (Hirschman, 1985. p. 36)

Hirschman concludes that the development "big push" must occur in deliberately selected sectors because of a scarcity of savings and a lack of growth-oriented social-psychology. These "leading" sectors are to be selected on the basis of the number of "backward" linkages associated with them on an input-output matrix. The greater the number of linkages an individual sector possesses, the more prominent it is with respect to receipt of investment funds. This approach places heavy emphasis upon the assumption that in a dual or plural economy, once the initial "push" is underway, economic integration will occur by means of functional relationships between productive segments of the economy. Such integration will thus create the fabric of the economy upon which further productivity will take place, generating future growth.

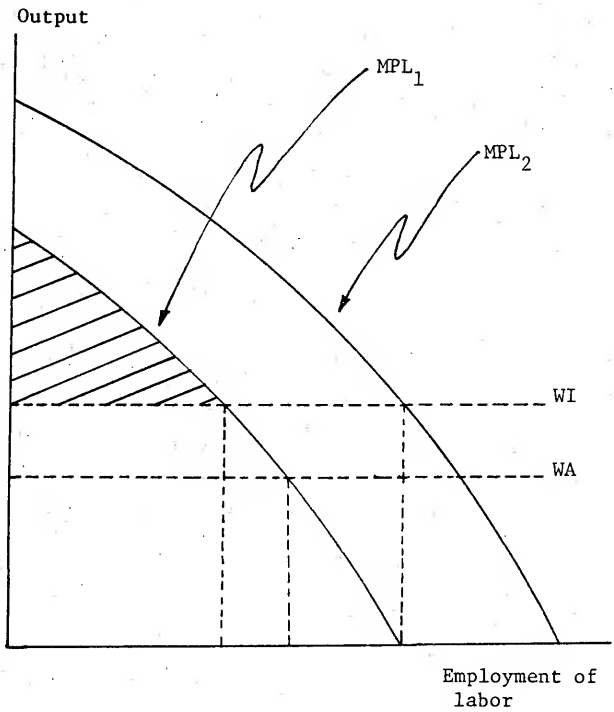
From the dualism concept came the celebrated thesis of W. Arthur Lewis (Lewis, 1954). Lewis bases his theory upon three assumptions: The first is that the economy is dual with wages in the agricultural

(traditional) sector being at the subsistence level because of a relative abundance of labor. At the same time, the marginal product of labor is higher in the industrial (modernized) sector which is reflected in a higher industrial wage. In general, the supply of labor is perfectly elastic. The second assumption is that the rate of capital accumulation in the industrial sector is not larger than the rate of population growth. The third assumption is that the cost of training labor is constant. This reduces the problem of obtaining skilled labor to a "quasi-bottleneck" situation in Lewis' own words.

Figure II-7 is used to illustrate Lewis' thesis. WI and WA are the wage levels in the industrial and agricultural sectors, respectively. The curves, MPL_1 and MPL_2, are marginal product of labor curves in the industrial sector. As labor moves from agriculture to be employed in industry, a surplus accrues to the owners of capital - this is because of the perfectly elastic labor supply. This surplus is represented by the shaded areas in the diagram. Capitalists reinvest a portion of this surplus which brings about a shift in the MPL curve to MPL_2. More labor is employed and more surplus accrues to the owners of capital. Providing wages in both sectors remain relatively unchanged, growth occurs but the benefits primarily go to the owners of capital.

Lewis postulates three ways in which this pattern of growth may be broken. The first is the case of population growth being less than economic growth in the industrial sector. This situation would result in increased productivity in the agrarian sector and wages would rise in both sectors. Should a "population multiplier", defined as the relative change in population, be in operation, then this case would fail to break the growth pattern. The second case is the occurrence of technological change

FIGURE II-7



in the agrarian sector due to increased socio-economic integration of the two sectors. Should agricultural wages exceed industrial wages then the labor flow pattern would be broken. The third case of the breakdown in the pattern of growth occurs as a result of the internal terms of trade turning against the industrial sector. As non-industrial prices increase relative to industrial prices, minimal wages in all sectors of the economy rise. This would slow down the growth rate and possibly stop it should agricultural wages exceed industrial wages. This third case emphasizes the occurrence of increased sectoral interdependence (integration) as growth takes place.

Lewis' theory has several implications with respect to internal trade. Technically modernized enclaves in less developed countries are generally export oriented (Levin, 1960). Because of the structure of the economy, the wage rate in this sector is maintained at a level just above the (subsistence) agricultural wage. This, coupled with monopoly elements in international markets, results in the international terms of trade favoring the more developed importer and being against the less developed exporter. Thus, such trade may increase employment in absolute terms in the modernized sector of the economy but simultaneously decreases labor's relative share in the economic growth which takes place. By design, the agrarian sector is not fully integrated into the foregn and domestic aspects of the nation's economy. The result is that many less developed countries appear to possess a comparative advantage in capital-intensive industrial products.

One of the most prominent statements on the "big push" theory of economic development is that of Paul Rosenstein-Rodan (Rosenstein-Rodan, 1957). He states that economic development is primarily a function of

capital accumulation. This function is made complex by three indivisibilities associated with investment. These are: One, indivisibility of social overhead capital (lumpiness); two, indivisibility of demand (complementarity); three, indivisibility of the supply of savings (kinky savings supply curve). These indivisibilites arise because of imperfections in the financial markets and the state of technology. These indivisiblities necessitate a "big push" or a concentrated effort on the part of the entire economic system if development is to begin and take root. In other words, internal economic integration is necessary to some degree because of these externalities. The degree to which this is necessary depends on the quality of resources available and the extent to which foreign trade reduces the range of complementary industries.

C. Kindleberger views economic development similarly (Kindleberger, 1965). He holds that a major portion of production in traditional societies is geared to a local market area (10 to 15 mile radius). As the society undergoes internal integration through improvements in transportation, communications, marketing institutions, (among others), these "local markets" expand and positively alter production incentive. In other words, large infrastructural investment, a "big push", is required to set off development.

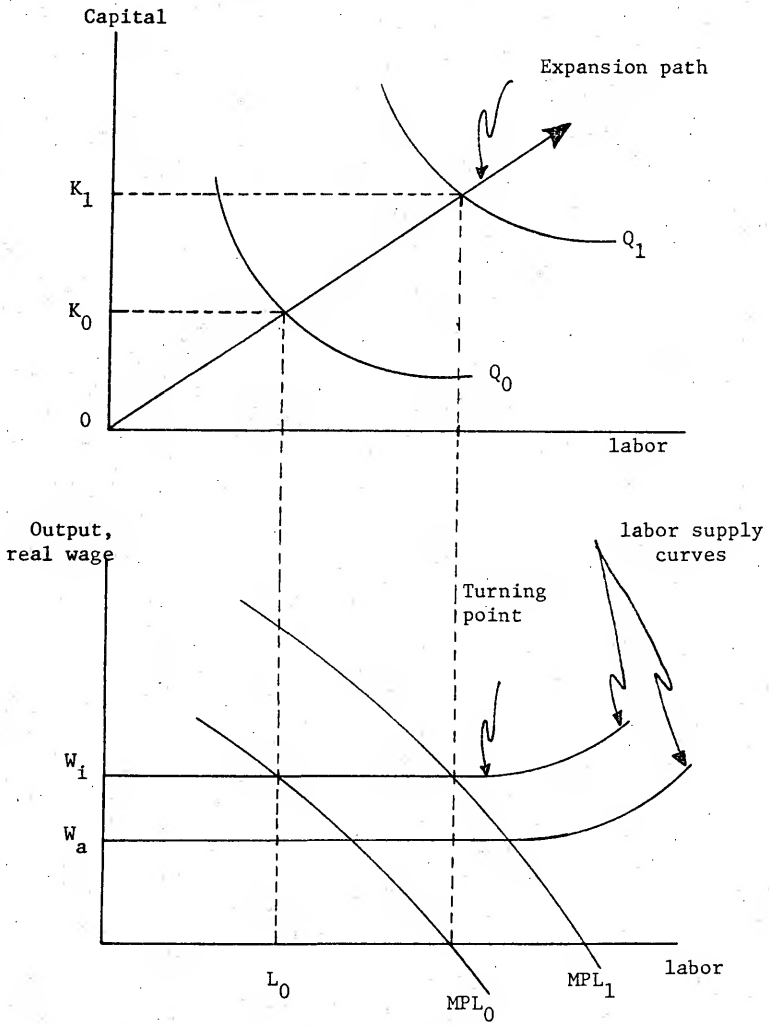
Ragnar Nurkse as mentioned above, regards this problem as a "vicious circle" in that small markets (in the sense of low demand) discourage capital formation which results in low productivity. Low productivity maintains small markets either by lack of incentive (Bator, 1958) or by Say's Law. To overcome this problem in the less developed countries, Nurkse advocates coordinated developmental planning on a system-wide basis (Nurkse, 1953). A synchronized or integrative investment plan over a wide range of "complementary" industries may sufficiently reduce the risk factor to encourage future investment.

John Fei and Gustav Ranis conceptualized the development of the labor surplus economy in much the same manner as W. A. Lewis (Fei and Ranis, 1964). Their theory, represented in figure II-8, is based upon the following assumptions: ultivable land is limited; wages in the industrial sector (W_i) exceed wages in the agricultural sector (W_a); the "institutional" industrial wage is constant; labor is redundant in the agricultural sector; the production isoquants (Q_o, Q_1) in the industrial sector are "well behaved"; technological change occurs only in the industrial sector; as labor migrates from the agricultural to the industrial sector the internal terms of trade do not change; capital accumulation in the economy increases employment only in the industrial sector since landowners prefer, by assumption, industrial investment.

Figure II-8 shows that as the stock of capital is increased from K_o to K_1, the marginal product of labor (MPL) shifts from MPL_o to MPL_1. Industrialists maximizing profits will set real wages equal to the marginal product of labor. Thus, as capital increases to K_1, output and employment (in the industrial sector) increases to Q_1 and L_1 respectively. This process continues until the surplus labor is absorbed - this occurs at the "turning point" on the labor supply curve. When the MPL curve shifts to the extent that it intersects the labor supply curve at a point to the right of the "turning point" then real wages must be raised in order to attract labor away from the agricultural sector. In such a case, capital accumulation must proceed at an even faster rate in order to maintain the same labor absorption rate, assuming that technological change does not alter the shape of the MPL curve.

This theory involves the same economic integration factors as Lewis'. Integration of the two sectors with regards to labor and capital are essential. Other areas of integration are the markets for agricultural

FIGURE II-8


Capital
Expansion path
K_1
K_0
Q_1
Q_0
0
labor
Output,
real wage
labor supply
curves
Turning
point
W_i
W_a
L_0
MPL_0
MPL_1
labor

and industrial products. International integration, which usually omits the agricultural sector of the less developed country, may encourage growth of the industrial sector and increased employment. On the other hand it may introduce technology with a high capital-labor ratio which would aggravate the problem. This issue of foreign investment and assistance was dealt with rather thoroughly by H. B. Chenery and A. M. Strout in their "two-gap" model analysis (Chenery and Strout, 1966).

As was mentioned above, the developmental processes of these "dualism" theories may be broken or dampened by changes in the internal terms of trade between agricultural and industrial products. A similar concept was applied on an international basis by Paul Prebisch and Hans Singer. They theorized that in trade between the more developed and less developed countries of the world, the terms of trade tend to move in favor of the former (Prebisch, 1959, 1962; Singer, 1964). Explanations of this thesis have been based on Engel's Law, monopoly power and income-elasticities of demand. The empirical evidence appears inconclusive, especially when the argument is based on the concept of the less developed countries being exporters of primary products (Ellis and Wallich, 1961). The implication of the Prebisch-Singer thesis, with respect to development, is for less developed countries to diversify their output and to move away from purely primary goods production. In other words, these countries should practice "import-substitution".

Relatively recently there has evolved a school of developmental thought known as "dependency economics". Development, in this context is defined as follows:

> Real development involves a structural transformation of the economy, society, polity and culture of the satellite that permits the self-generating and self-perpetuating use and development of the people's

> potential. Development comes about as a consequence of a people's frontal attack on the oppression, exploitation and poverty that they suffer at the hands of the dominant classes and their system.
> (Cockcraft, Frank, Johnson, 1972. p. xvi).

The dependency theorists hold that the economics of the world exist in various integrated groupings. The integrative structure of these groups is one of dependency. Dos Santos defines three types of dependency relationships. These are "colonial", "financial-industrial", and "technological-industrial". The "colonial" type is the case where,

> ... commercial and financial capital in alliance with the colonialist state dominated the economic relations of the Europeans and the Colonies by monopolization of land, mines and manpower in the colonized countries.
> (Dos Santos, 1970. p. 232).

The "financial-industrial" type is the case of,

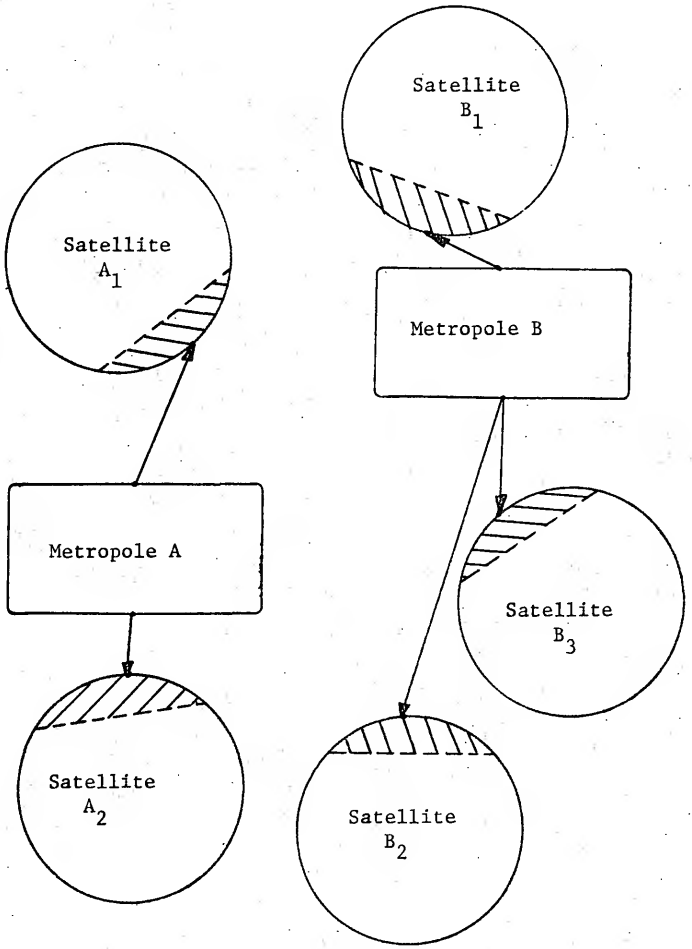
> ... domination of big capital in the hegemonic centers, and its expansions abroad through investment in the production of raw materials and agricultural productions for consumption in the hegemonic centers.
> Dos Santos, 1970. p. 232).

The "technological-industrial" type is the case of,

> ... multinational corporations which began to invest in industry geared to the internal market of underdeveloped countries.
> (Santos, 1970. p. 232).

The general structure of the dependency relationship is illustrated in a figure II-9. There exists certain metropolitan centers which are politically dominant and highly industrialized. Associated with these centers in an unilateral dependency relationship are underdeveloped satellite states. These relationships, as described above, are often political and are almost always economic. The "metropoles" compete with each other on an equal basis in international markets. However, the satellites are restricted from such activities unless under the sanctions of their respective metropoles. Thus, the economic development of those

FIGURE II-9


Satellite
B_1
Satellite
A_1
Metropole B
Metropole A
Satellite
B_3
Satellite
A_2
Satellite
B_2

satellites with comparatively large foreign sectors, is determined by the dominant metropolitan country. Further, as Levin states,

> The existence of foreign factors, remitting their income abroad, casts serious doubt upon the validity of several widely accepted fundamental assumptions, the most important of these being the identity between production and income within a geographic area.
> ... It may be appropriate for this purpose to view the national frontier of an export economy as running not along its geographical boundaries but through the export production process itself, separating the domestic factors from the foreign factors, and marking as an export only the product of domestic factors which crosses the line toward the outside world.
>
> (Levin, 1960. p. 173).

The satellite's economy itself is far from being an integrated structure. It is viewed as being dualistic(Beckford, 1972). The dominant industrialized sector is the metropole-oriented encla e to which Levin refers (above). The "backward" sector is generally agrarian, a source of factors of production for the modernized enclave and of an indigenous socio-cultural structure. The hatched area in figure II-9 represents the metropole-oriented enclaves within the satellite countries. It is the strong linkage between the enclave and its respective metropole which effectuates the rigid dependency structure. The structure regenerates itself in one of Dos Santos' three forms (or a combination of them) until it is politically or economically no longer feasible.

CHAPTER III.

ECONOMIC INTEGRATION

In light of Chapter II, it should be clear that socio-economic integration was and is not explicitly considered as a causative factor of economic growth or development. This is perhaps because of the narrow and sterile definition usually given to socio-economic integration. However, from the simple demonstration in Chapter II, a broader concept of integration plays an important role in many of the developmental theories. In order to pursue this, it is necessary to explicitly define the conventional concept of socio-economic integration and its more realistic extension - more realistic because it neither attempts a total abstraction of the integrative institutions from its socio-cultural milieu, nor confines integration to arbitrary political units at the nation-state level of social organization. This is the objective of this chapter.

Generally, economic integration may be defined as the cooperation, harmonization or unification of units of production or consumption. Such units may be households, nation-states, or any other form of socio-economic organization. However, the conventional definition of economic integration is of much narrower scope. For example, Ingo Walter refers to it as,

> ...attempts by groups of nations, which may or may not be regionally cohesive, to eliminate or reduce restrictions to trade, payments, and factor mobility among themselves, while at the same time retaining most or all of these

> restrictions on transactions with respect to the rest of the world.
>
> (Walter, 1968. P. 536).

Accordingly, the integrative process begins at a stage of "non-integration" (as opposed to a state of disintegration), and possibly proceeds through stages of "free-trade agreements", "custom unions", "common markets", and "economic communities".

Figure III.1 represents three countries, A, B, and C, in a "non-integrated" situation. Economically, they are three totally separate sets. That is, there is no economic interaction between any of them. If trade should occur between all three countries then they would be integrated at a very basic level. Such a situation is depicted in figure III.2. The differing number of rings bordering each country is utilized to illustrate the differing trade conditions, particularly tariffs and quotas, existing in each country.

The next major integrative stage would be the establishment of a "free-trade area". This is an agreement by participating nation-states to trade with each other (in each others' commodities) with no trade restrictions such as tariffs. This is illustrated in figure III-3 where countries A and B have formed a "free-trade area". The trade channel between A and B is unrestricted while the channels between C and A, and C and B are still subject to trade restrictions. In many instances, "free-trade agreements" are "limited", in that they may apply only to select products or may allow certain trade restrictions to remain for specified periods. This often occurs in the case of "infant" industries and less developed economies where it is believed that protective tariffs are vital in the early stages of growth.

The establishment of a "custom union" is the next stage. This

FIGURE III-1

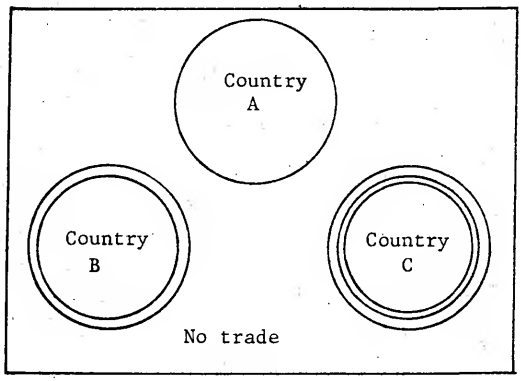


FIGURE III-2

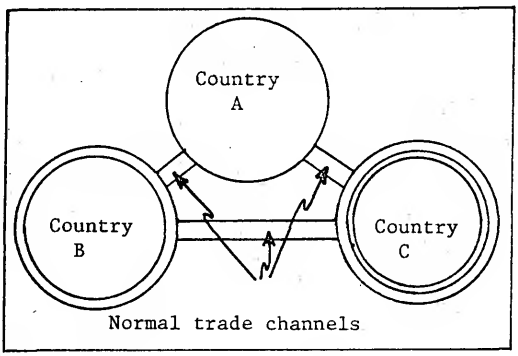


FIGURE III-3

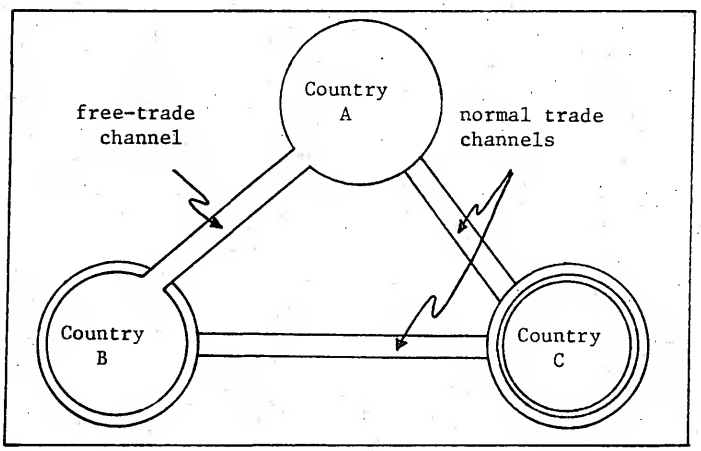
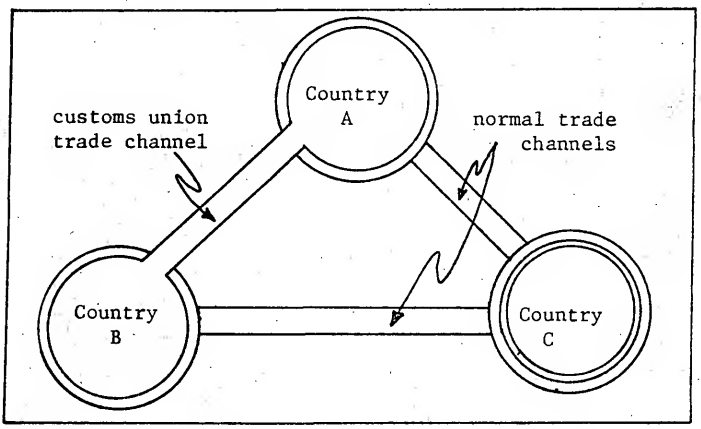


FIGURE III-4

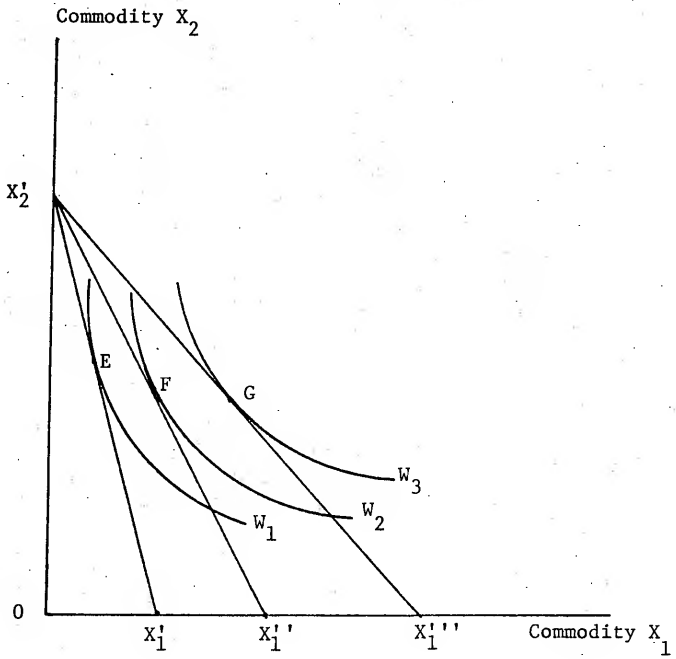


is the case where participating countries not only conform to the conditions of a "free-trade agreement" but also enact a common external tariff and quota system. Figure III.4 illustrates the establishment of a "customs union" by countries A and B. Countries A and B engage in free-trade with each other but conduct trade with country C under identical trade restrictions - both A and B are now bordered by double rings.

Generally, "customs unions" allow commodity markets to function efficiently as an allocative and distributive device. This has been discussed above with respect to the theory of "comparative advantage". The implication is that the real income of member-countries (of a "customs union") will increase. This increase in aggregate demand will result in the widening of existing markets and the establishment of new ones. This will result in further economic growth providing Say's Law and the availability of productive resources do not falter. On the other hand, "customs unions" may cause world or regional trade to shift from a more efficient (lower cost) non-member country to a less efficient (higher cost) member country. In a global sense, this is not optimal. From the point of view of "customs unions" members, they would be obliged to purchase such commodities at non-competitive prices.

The following example shows some of the possible results of the formation of a "customs union". In figure III-5, line $x_2' x_1''$ represents the international terms of trade facing a country A when it trades with a country B. It is assumed that country A specializes in the production of commodity X_2, country B is the world's lowest cost producer of commodity X_1, country A has in effect an ad valorem

FIGURE III-5



tariff on X_1, and the curves W_i are the welfare curves of country A (W_i greater than W_j for i greater than j). Country A, in this case, will be at its welfare maximization point F.

If a "customs union" is established consisting of countries A and B, then the relative price of commodity X_1 will be reduced to its pre-tariff, free-trade level. This will cause the terms of trade to change to some level represented by the line $X_2'X_1'''$, ceteris paribus. Country A's welfare maximizing point would now be G on the greater social welfare function W_3. Thus, country A would gain from a "customs union" under these circumstances.

If country B was to be excluded from the "customs union" and in its place, a higher cost producer of X_1, country C, was to be included, then the relative price of X_1 would be higher thereby making the terms of trade some line $X_2'X_1'$. In this case, country A's welfare maximizing point would be E at the lower welfare level W_1. Thus country A would not benefit from a "customs union". (Further demonstrations of this type are performed by Franz Gehrels, 1956-57).

Further, if country A's tariff on commodity X_1 was even greater prior to the establishment of the "customs union" then there is a greater probability of country A benefiting from a "customs union" irregardless of the cost of production levels of the other member countries. One reason for this is that country A's terms of trade under tariff conditions would approach or even surpass the terms of trade line X_2' X_1' (figure III.5). In this case, whether country B or C is included in the union, country A would not lose much and could even gain a lot. A second reason for this likelihood has been offered by Ingo Walter (Walter, 1967). He theorized that a condition of

relatively high tariffs in international markets tend to restrain the volume of trade. The establishment of a "customs union" would lead to a growth in trade among members providing trade diversion does not take place. Such growth may foster high expectations for future growth and such expectations, of themselves, may lead to trade creation.

With respect to "customs unions", several other factors should be taken into account: One, it is held (Viner, 1950; Tinbergen, 1959) that the larger the economic size of the union, the greater is the probability that it will be beneficial. The reasoning behind this is that the more countries and the larger the economies, the greater is the likelihood that the low-cost producers are included. Two, economic distance, which may be approximated by some measure of transportation cost such as the difference between a commodity's cost upon arrival (c.i.f.) and its cost at departure (f.o.b.), tends to vary inversely with the volume of trade (Balassa, 1961). This should be taken into account when projecting expected benefits.

Three, the economic structure of the member countries may significantly affect the success of a "customs union". If the economies are similarly structured with considerable overlapping in the range of commodities they produce, then they are "competitive". "Competitive" economies may politically be reluctant to integrate since benefits from intra-union trade may be small (Viner, 1950). However, S. Linder (Linder, 1961) shows that these conditions are necessary for these economies to successfully integrate. This theory is analyzed in Chapter II, above. On the other hand, Viner holds that a "customs union", whose member countries have differing production ranges ("complementary" economies), is most likely to succeed. The rationale

is that such conditions provide greater specialization and market-creation opportunities. Other factors which may aid or hinder the success of "customs unions" are national or international subsidization of industries, foreign ownership of domestic industries, international mergers and licensing agreements.

The next degree of economic integration is the establishment of a "common market". A "common market" is a "customs union" with the additional feature of unrestricted factor-mobility among the member countries. Figure III-6 illustrates the case of a "common market" between countries A and B. Both countries engage in "free-trade" with each other but exhibit a common external tariff wall when engaged in trade with country C. In addition, the factors of production of either country A or B may freely migrate from one country to the other as illustrated by the "common market" factor channel in the diagram.

The benefits to be gained from the establishment of a "common market" are similar to those mentioned above in respect to "customs unions". Furthermore, the factor mobility feature of a "common market" should lead to production optimality. The reasoning is that the factors would migrate to places and usages where their returns (marginal revenue product) were highest. Under perfect competition assumptions, this would assure the most efficient use of these factors and the optimization of production for a given level of technology. (Efficiency is used here in the Paretian sense - Henderson, J.M. and Quandt, R.E., 1971. Pp. 225-264). Drawbacks would occur where the conditions of perfect competition are violated either because of natural forces or governmental policies. Such appears to have been the situation in the case of the Central African Federation and the Latin America Free Trade Association.

FIGURE III-6

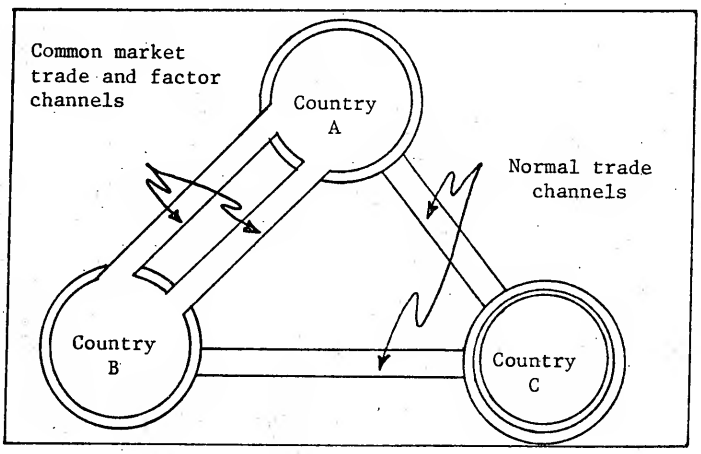
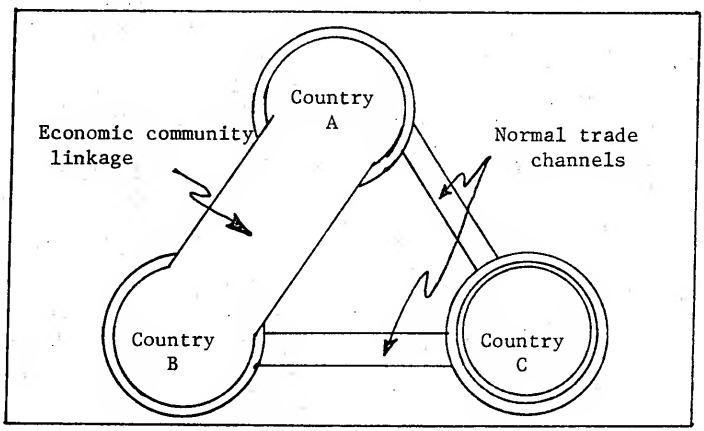


FIGURE III-7



On the other hand, the Central American Common Market has been relatively successful, perhaps because of the complementarity of the products and the economic policies of Costa Rica, Guatemala, El Salvador, Honduras, and Nicaragua (Walter and Vitzthum, 1967).

The final stage in conventional economic integration is the establishment of an "economic community". This is the situation where the member countries of the community participate in free-trade, unrestricted factor-mobility, economic policy and monetary harmonization. Figure III-7 represents the formation of an "economic community" involving countries A and B, but excluding country C. Interaction between countries A and B is no longer confined to set channels but rather is a total linkage of both economies. The major difference between this integrative stage and those previously mentioned is the coordination of economic policies to meet the welfare objectives of each member country. Frequently, this requires the establishment of a single "supra-national" economic authority and a single monetary authority. The formation of such a union is of general economic optimality in a Paretian sense. The possible disadvantages and problems are numerous. Such a union poses a definite threat to a country's sovereignty in that it loses immediate control over a significant area of national power. Furthermore, national economic objectives may be so different from one country to another that policy harmonization may be an impossible task. (Meade, 1953 and 1955).

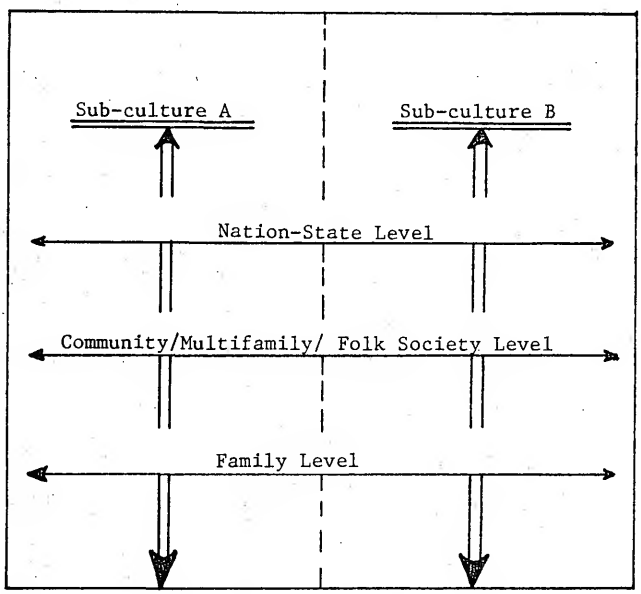
The conventional concept of the economic integration of societies is clearly narrow in scope and applicability. It deals primarily with the nation-state level of social organization. It ignores social organization at other levels and social structure at all levels.

However, it is readily incorporated into the integration concept of Julian Steward (Steward, 1955) and, to a lesser degree, Robert Redfield (Redfield, 1941). Redfield and Steward viewed the normative, patterned and relativistic aspects of culture from the perspective of levels of integration, beginning with the nuclear family level and progressing to the more complex community or folk society level. Redfield used the concept of the modernized city (Merida) to establish the linkage between the folk society level and the nation-state level. He emphasized a unilinear, somewhat evolutionary, approach to the integration and social change question.

On the other hand, Julian Steward takes a multilinear approach. He defines three major socio-cultural lev s or strata. These are the nuclear family, the community and the nation-state levels. These levels may be extended as was done by Charles Wagley (Wagley, 1968). A society (nation-state level) may be culturally analyzed from a schema of "horizontal" and "vertical" cleavages. Figure III-8 illustrates this. The rows represent the horizontal cleavages at different levels beginning with the nation-state and culminating at the family level. The columns represent the vertical cleavages differentiated along lines of specific cultural or subcultural patterns. Horizontal cleavages tend to run along occupational or class lines. Vertical cleavages tend to appear in such folk achievements as music, arts and crafts, religion and ideology. These may vary from one vertical cleavage column to another. A major obstacle in the social scientist's path today is the failure to recognize that subcultures do exist within the same society and are significant in the orientation of the society.

The concept of "national culture" is a much abused one. It should

FIGURE III-8



: horizontal cleavages

: vertical cleavages

refer to widescale (in terms of a nation) economic, religious and governing institutions functioning on the national level (confer figure III-8. It should also refer to "cultural products". That is, those achievements in the arts and sciences (or even athletics) which are nationally or internationally recognized. If the definition of the national level of socio-cultural integration is constrained to the above, then it is possible to develop a fairly homogeneous concept of "national culture" and it would be possible to thoroughly analyze it by consultation with economists, religious historians, political scientists and legal experts. But careful observation of shared national behavior will reveal events which are inexplicable by specialists thinking in the framework of horizontal cleavages. Such events find meaning only when viewed in terms of the underlying vertical relationships. Thus, to understand why cod fish is part of the Caribbean culture at the national level, one must examine the development of eating patterns of a subculture existing at a totally different level of integration.

The second level of socio-cultural integration goes by several names including "multifamily" and "community". The characteristics of folk socieites are smallness, isolation (relatively speaking), homogeniety, supernaturalism, an orientation towards implicit goals and values, and the strong influence of kinship patterns. As the folk society becomes integrated into vertically superior (an ordinal concept) levels such as the nation-state, it tends to become secularized. Its members become individualized in terms of occupational, economic and ethnic categorization. The community loses its homogeniety and organizational rigor. In his "Folk Culture of Yucatan" (Redfield, 1941), Robert Redfield shows the contrast between the more nationally

integrated modernized city, Merida, and the folk societies of Dzitas, Chan Kom and Tusik. However, these are no more than "developmental levels" within the context of a particular level of socio-cultural integration. This differs with Redfield's evolutionary transition view whereby various levels of society gradually change into a more advanced form.

By all appearance, the biological nuclear family is both structurally and historically prior to the folk society level. In most societies, the family forms the central unit of socio-cultural activity. It is the major reproductive, religious and educational unit. In previous times, it was the major productive and political unit. This level of integration is characterized by a fair degree of self-sufficiency in religion, education, welfare and economic activity. Presently, there is a trend to transfer many of the socio-cultural functions of the family to the community or national levels. In fact, it is quite possible to believe that most, if not all, of the family's functions will eventually be relegated to the nation-state level (Toffler, 1970).

Besides viewing the levels of socio-cultural integration in a static model, it is possible to view it in a dynamic one, Julian Steward refers to this as "developmental levels". He says,

> In the growth continuum of any culture, there is a succession of organizational types which are not only increasingly complex but which represent new emergent forms. ...In culture, simple forms, such as those represented by the family or band, do not wholly disappear when a more complex stage of development is reached, nor do they merely survive fossile-like, as the concepts of folk ways and mores formerly assumed. They gradually become modified as specialized, dependent parts of new kinds of total configurations. (Steward, 1955, P. 51).

In the context of socio-cultural integration, development implies a more complex structure but complexity does not necessarily imply development. Further, the process of cultural change does not necessarily move along predetermined steps or any particular evolutionary sequence; neither does it results in a sequence of identically structured developmental levels.

In general, if one accepts the assumption that the nuclear family is basic to every modern society, then it is reasonable to deduce that from it was generated more complex social forms such as the extended family, tribes, folk society (in its many forms), and so on. Presently, the most powerful and dominant of the levels appears to be the nation-state.

In utilizing the concept of levels of socio-cultural integration, the following factors are important: First, the family's practices leave permanent imprints on its members' behavior and influence national culture patterns in the case of child rearing, eating, and recreation, among other things. These practices generally take root at an early stage and become ingrained in national culture. Community patterns generally affect national culture to a lesser degree because they do not play as significant a role in individuals' subsistence and economic attitudes.

Second, national culture possesses common behavioral traits which come about only because of common participation in national institutions. For instance, all members of the nation conform to a prescribed behavior set pertaining to matters of law and order. The effects that such national institutions have upon individuals may vary considerably at the community level or at the family level. Third, mass communication's

development has tended to standardize national ideals of behavior. Finally, because of such social pressures as poverty and political representation, national institutions and national attitudes may undergo significant change in a relatively short period. However, similar change on the community and family levels may literally take centuries.

CHAPTER IV

AN INSTITUTIONAL FRAMEWORK FOR ECONOMIC DEVELOPMENT ANALYSIS

The first objective of this chapter is to provide an institutional framework for economic development analysis. The review of the development literature in Chapter II reveals that there is a cumulative trend in the work of economic development scholars towards institutionalism or structuralism. The general reason for this is a dissatisfaction with the conventional framework, primarily because of its failure to recognize Economic Man as part of a socio-cultural whole. The conventional framework does not deal sufficiently with institutions. However, institutional change is a crucial aspect of the developmental transformation of societies. Knowledge of the process of such change is essential for developmental planning and policy-making.

The second objective of this Chapter is to provide a taxonomy of concepts relevant to the institutional framework. The need for such is obvious from Chapter II, which shows that there currently exists a multiplicity of definitions of economic development. One group of theorists views economic development as the rate of accumulation of wealth (variously defined); a second group views economic development as an increase in the rate of attainable commodities; a third group maintains that economic development is progress in the movement towards social equality (variously defined); a fourth group holds that economic development is the process of "depauperization"; a fifth group views economic development as the structural transformation of society; and a sixth group defines economic

development as economic growth - an increase in real per capita income per unit of time. Ambiguities exist in terminology with much of the problem being that terms, such as poverty and wealth, are rooted in the implicit philosophical ethic of their user's culture.

The third objective is to demonstrate the importance of socio-economic integration to the process of economic development. Chapter III has shown how restricted the predominant concept of integration is. Its applicability has been primarily on the nation-state level of social organization. The alternative concept of integration, based on anthropological research, has far greater significance for the economic development of society. Primarily, this is because integration plays a major role in the process of institutional change. As mentioned above, this process is involved in the economic transformation of societies.

It is highly probable that a majority of social scientists would agree that economic development is the occurrence of social change such that the economic well-being of society is improved. However, the practicality of this definition, as it stands, is rather limited. This is primarily because it calls for the definition of a social welfare function by which to judge changes in the society's well-being. Investigations into the problems of existence and definition of social welfare functions as well as possible alternatives, are to be found in Bergson, 1938, Scitovsky, 1941-1942, Samuelson, 1948, Arrow, 1951, Bator, 1957, Rothenberg, 1961, and Roberts and Holdren, 1972.

However, economic development, as defined above, may be approached from another perspective. Development is concerned with social change and cannot be abstracted from the concept of society itself. Society is an interacting aggregate of people (in this case) who share ideas and behavioral patterns which have been learned or somehow transmitted. The implication is,

> Society to Kroeber and Parsons, constitutes the structure of social relationships, whereas culture is the content of those relationships - the material items and behavioral characteristics and symbolic meanings that emerge from the relationships that constitute the structure. Neither culture nor society can exist without the other, but they can vary independently in that there may be more than one culture in a single society, and a single culture can exist in more than one society.
> (Berreman, et al. 1971, p. 40).

A proper analysis of economic development must incorporate the socio-cultural dimension of Man's existence

The basis of human society is the individual. For purposes of this essay, the individual is defined as a person who conforms to the following three assumptions: The first, interdependency, is the condition that an individual's secular existence is dependent upon other human beings as well as the resources of the universe. That is, a person requires other persons in order to come into secular existence and to remain in existence. Likewise, an individual requires the food from the earth to exist.

The second assumption, rationality, involves conditions of consis0 tency and deliberate choice. The individual is consistent in that he always chooses in accordance with his personal development objectives. He exercises deliberate choice if he selects with knowledge (even though limited) from among alternatives. He neither exists in a deterministic world nor is his existence one of fixed responses to stimuli. He preserves his rationality as long as the above is true, even if he appears irrational to others. For example, if an individual resides in in a fish-eating community where he consumes fish once per day but his development objective is to consume steak once per day, then he is being rational when he chooses not to consume fish twice per day when the opportunity presents itself. However, he appears irrational to the community of fish-eaters whose goal is to eat fish three times per day.

The third assumption, fallibility, is that the individual does not possess perfect knowledge. Accordingly, each undertaking involves some degree of uncertainty. The individual, depending on his character, possesses some level of tolerance of uncertainty. If his level of tolerance is significantly above average, he is a "risk lover". If it is significantly below average, he is a "risk averter".

Economic Man, a general term for one who conforms to the three fundamental assumptions above, seeks personal economic development. He achieves such a state when reality coincides with his ideals of secular existence. He accomplishes this through a process of choice. Basic to an analysis of this process is the concept of the individual's knowledge set, K_j, where the subscript j refers to the j-th individual. K_j is the aggregate of individual j's cognition of existence as it is and as it ought to be. It is expanded by primary and secondary experiences and accompanying intellectual activity. Primary experiences are direct sensory perceptions and secondary experiences are the communicated perceptions of others. Intellectual activity is a general term for the understanding of information whether it be founded in experience or imagination(creativity).

A subset of individual j's knowledge set is his normative economic set, N_j. The elements of N_j are j's economic ideals. These are ideals whose attainment depends on the resources (including produced goods and services) available to j. In a sense, the elements of N_j are j's economic objectives. N_j is entirely dependent on K_j. An example of an element of N_j would be j's having a pool in his yard.

Economic reality for individual j partially consists of the set of resources that he has at his disposal. This may be represented by Q_j the

vector of the matrix Q. The matrix Q is defined as follows:

$Q = \{q_{j,i}\}$, $j = 1,\ldots,n.$ (index of persons)
, $i = 1,\ldots.m.$ (index of resources)

$Q_j = \{q_{j,1},\ldots,q_{j,k-1}$, (consumption products)

$q_{j,k},\ldots,q_{j,\ell-1}$, (capital products)

$q_{j,\ell}$, (labor)

$q_{j,\ell+1},\ldots,q_{j,m-1}$, (natural resources)

$q_{j,m}\}$ (time).

By simple deduction, all elements of Q_j are also elements of K_j. In other words, resources are not really at j's disposal unless he is cognizant of them.

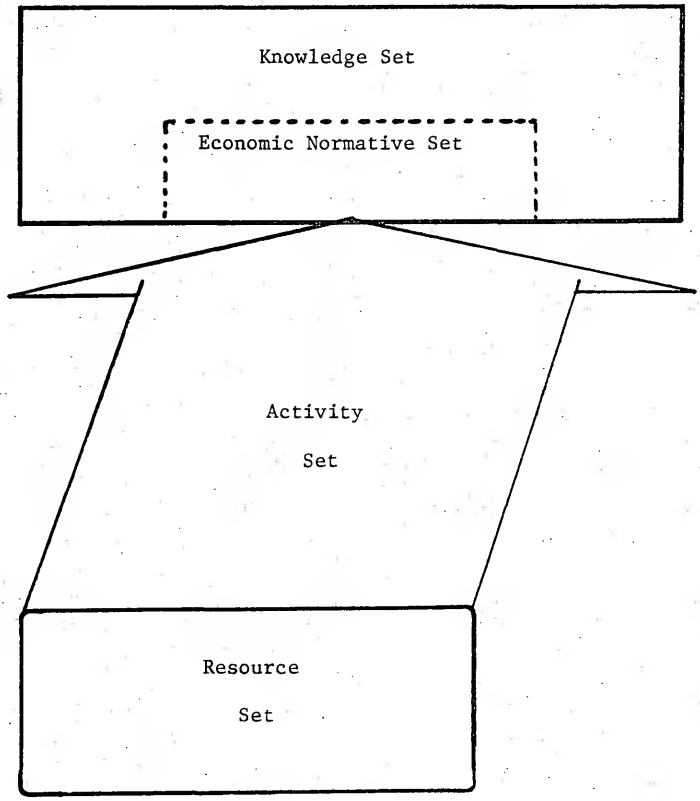
Another portion of j's economic reality is the set of economic activities, A_j, which he is capable of performing. Activities are economic if they employ economic resources in their enactment. Individual j's activity set, A_j, is the column vector of the matrix A.

$A = \{a_{h,j}\}$ $h = 1,\ldots,\ell.$ (index of economic activities)
$j = 1,\ldots,n.$ (index of persons)

$A_j = \{a_{1,j},\ldots,a_{\ell,j}\}$ (individual j's activity set).

The activity set of individual j is really a transformation set, mapping the resources available to j into j's economic normative set. This is illustrated in figure IV-1. By deduction, A_j is dependent on K_j. The economic reality of individual j's existence is the combination of his activity and resoucre sets subject to institutional and uncertainty constraints. The set of institutional constraints applicable to j, I_j, will be discussed in detail in conjunction with society. The uncertainty constraint applicable to j, U_j, will be discussed below.

FIGURE IV-1


Knowledge Set
Economic Normative Set
Activity
Set
Resource
Set

In light of the concepts of economic reality and economic objectives, it is now possible to conceive of personal economic development as the reduction in the difference between the two. The process of such development is a process of choice. Personal economic development occurs as an individual chooses from among alternatives a combination of activities and resources which will minimize the difference between his economic reality and his economic normative set. Implicit in the use of the term choice, is the interpretation of it as being effective choice, That is, an alternative, once chosen, is brought into existence by the decisive act. Its full realization, in terms of activities and resources, may or may not be immediate. Such depends on the individual's allocation of the time resource in the chosen alternative. An activity set in isolation has little meaning with respect to economic reality and so must find its meaning in combination with the resource set. The development process continues as alternatives arise that minimize the difference between economic reality and the normative set.

A decision rule or function is a crucial aspect of the choice process. A general concept of such a rule can be derived from the three fundamental assumptions. The second assumption, rationality, implies that the individual freely chooses from among alternatives, that alternative which has the expectation of accomplishing his economic ideals. In other words, a condition of individual choice is that the expectation of an alternative be in the economic normative set. This may be written,

$$E(A_j(Q_j))\varepsilon N_j \qquad \text{(condition 1).}$$

The first fundamental assumption, interdependency, implies that an individual interacts with others and, as will be explained below, is constrained by socio-cultural institutions. Accordingly, his choice of alternatives must fall within the limits imposed by institutions. This alters condition 1 to the following:

$$E(A_j(Q) \text{ s.t.} I_j) \varepsilon N_j \qquad \text{(condition 1a)}$$

But the third fundamental assumption, fallibility, implies that there will be some distribution of the possible outcomes. Thus, an individual accounts for this in his decision rule and sets some risk-tolerance level. Condition 1a is altered to accomodate this,

$$E(A_j(Q_j) \text{ s.t. } I_j, U_j \leq U_j^*) \varepsilon N_j \qquad \text{(condition 1b).}$$

U_j is the expected level of risk associated with condition 1a. U_j^* is j's risk-tolerance (maximum) level. If the expected level of risk of a particular alternative is greater than j's risk-tolerance level, then it will not be selected. U_j^* is an arbitrary trait of the individual. A decision rule which conforms to the general form of condition 1b is a valid decision rule.

The process of personal development is then one of subjecting alternative combinations of economic activities and resources to a decision rule and selecting that alternative which is expected to reduce the difference between economic reality and one's economic normative set. Because of the fallibility of an individual and the inclusion of time in the resource set, there is no guarantee that N_j will be attained in time. Further, the development process is dynamic in that the individual's knowledge set is capable of expanding (or contracting) through the feedback information of observing the unfolding of one's decision. This may give rise to an alternative which performs better under the decision rule than the one in existence. The new alternative would be chosen nad would replace the old alternative. Thus, the process continues in pursuit of a fully developed economic existence.

This analysis may be extended to a two-person economic society. The conditions for the existence of an economic society are that there be at least two interdependent members and that such members conform to the

three fundamental assumptions. This interdependence occurs with respect to the resources set, Q, and results in external economies or diseconomies. It is precisely such phenomena that motivate the existence of economic society and the formation of integrative institutions.

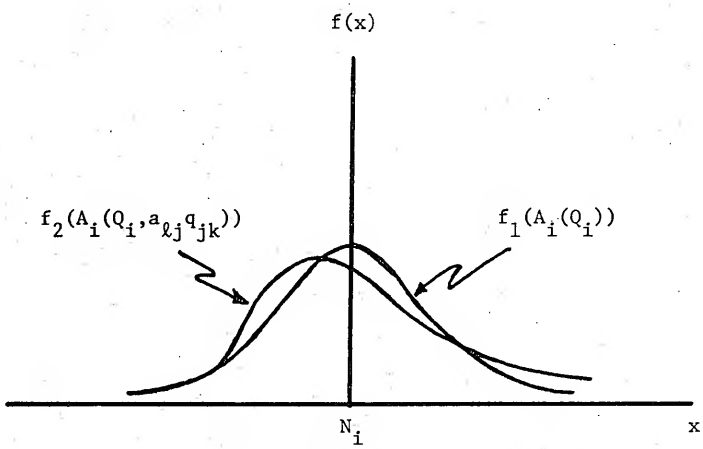
A simple model of a two-person society, i and j, may demonstrate this. Assume that one aspect of individual i's economic endeavors, $A_i(Q_i)$, is apple growing. Assume also that one aspect of individual j's economic endeavors, $A_j(Q_j)$, is beekeeping. Besides producing apples and honey, individuals i and j also produce nectar and bee pollination service, respectively. The nectar is food for the bees and an external economy. The pollination service is important to the apple orchard's yield and so it is also an external economy. Individuals i and j are thus participants in a positive sum game. The possible outcomes are: one, if they attempt to break up the society and isolate themselves both will be worse off because of the necessary interdependence. Two, if they are ignorant of the externalities and maintain the status quo, then there will be biases built into the individuals' choice processes. In individual i's case, he is basing his development choice on the expectation of his economic alternative, $A_i(Q_i)$, being his economic normative set, N_i, with $A_i(Q_i)$ being distributed $f_i(A_i(Q_i))$. However, because of his ignorance, his choice is really $(A_i(Q_i, a_{\ell j} q_{jk}))$ where $a_{\ell j} q_{jk}$ is j's beekeeping. Although it may have an expectation of N_i, it will probably have a significantly different distribution such that

$$f_2\ (A_i(Q_i,\ a_{\ell j} q_{jk})) \neq f_1\ (A_i(Q_i)).$$

This is illustrated in figure IV-2.

The result of such a situation is that i may overshoot his objective and would then be motivated to alter his economic endeavors. At the same time, j's honey production would have performed similarly, motivating j to

FIGURE IV-2

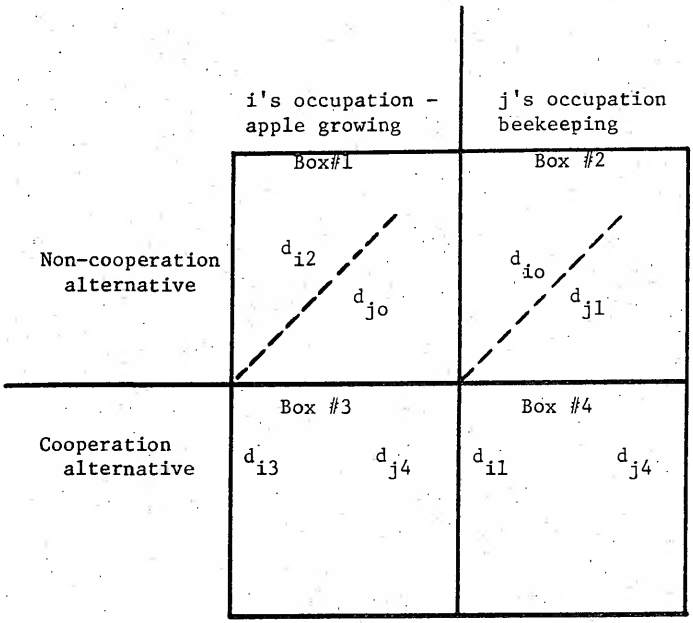


alter his economic efforts. The result is that both may undershoot their objectives. If ignorance persists, they would continue to treat the biases as random disturbances and act accordingly. Their behavior would be rational but to an informed observer, it would appear irrational. Given arbitrary risk-tolerances of i and j, the likelihood of obtaining the optimal solution is less than in the case where the externalities are recognized. This is illustrated in Matrix IV-1.

The third possible outcome would be the situation where the externalities are recognized by one person and not by the other. The informed person would then incorporate the other's production into his decision function. The solution would not be the optimal one for this two-person society unless, by coincidence, the ignorant person did select the optimal allocation or employment of resources. The fourth possible outcome would be the case of both persons being informed of the externalities. They would be able to adjust their combination of economic activities and resources to optimize the economic development of both. The biases introduced into their choice process would also have been removed thereby reducing the degree of uncertainty that would otherwise have prevailed regarding their economic endeavors.

Given the conditions above, it is clear that personal economic development is enhanced by social cooperation. This cooperation is really the integration of the members of the society by means of socio-economic institutions. Referring to the apple growing, beekeeping example, either i or j realizes the social advantages of cooperating. The individual establishes a communicative institution, I_c, for the purpose of making the other member of the society knowledgable of the social alternatives. I_c is a structural change. It also integrates the knowledge sets of i and j.

MATRIX IV-1


i's occupation - apple growing
j's occupation beekeeping
Box#1
Box #2
Non-cooperation alternative
d_{i2}
d_{jo}
d_{io}
d_{j1}
Box #3
Box #4
Cooperation alternative
d_{i3}
d_{j4}
d_{i1}
d_{j4}

The members of the society then subject the alternatives to their personal decision rule. The social alternative which offers the greatest expectation of meeting their personal development goal is chosen subject to social affirmation. Here, the next type of integrative institution comes into play. This is a social decision institution, I_d, which is merely a social voting rule which is affirmed by the personal decision rules of the members of the society, and which verifies itself. This again is another structural change which integrates personal decision rules. This institution, in effect, reduces all social decisions to unanimity, whether or not the social decision rule calls for unanimity. This "unanimity paradox" is developed in Roberts, 1971.

The cooperative alternative is subjected to the social decision institution and is either affirmed or rejected. If rejected, the status quo is preserved. If accepted, the cooperative alternative is implemented. The implementation necessitates broad social contracts or institutions that integrate the resource and activity sets of the members of the society. This is another structural change which is expected to result in the economic development of the society. The entire process of the economic development of the society is one of personal economic development, individual and social choice, and integration.

The analysis of the economic development process is applicable to homogeneous societies of any size membership. By definition, homogeneous societies are societies with a single culture. The implication is that the members of such a society will have highly similar knowledge sets and therefore, highly similar economic normative sets. Because of that and the probability that the resource sets are alike, homogeneous societies appear to exhibit a social normative set. This however, is only a repre-

sentative individual's economic normative set. The economic development process is the same but perhaps with more institutions.

However, in the more realistic case of the pluralistic society (society containing more than one cultural group) the analysis becomes more complex. If there are only two cultural groups, then the analysis is similar to the two-person society except that cultural groups would replace persons. Each individual, conforming to the fundamental assumptions, would seek personal economic development. Further, institutions would be formed within each cultural group to enhance that group's economic development. The economic development process would be similar to the development of a homogeneous society to this point. However, whereas the latter is capable of putting the society's resource set to its most productive use, the former is still faced with two groups vying for the society's resources.

As in the two-person positive sum game, the economically best alternatives arise through cooperation. This comes about by the establishment of a second tier of integrative institutions between the institutions of each cultural group. For example, a bilingual newspaper in Canada's Quebec province would be a communicative institution linking the French and English cultural groups. It is clear that in order to make optimum use of the society's resource set in the pursuit of economic development, the pluralistic society has to establish and maintain relatively more institutions than the homogeneous society of the same number of members. Further, the pluralistic society's social decision institutions will be more complex and costly than those of the homogeneous society because of the significant difference of economic normative sets.

The social decision institutions in this case are of vital importance

to economic development. A particular decision institution may be structured so that only one group really makes the social choices. Such was the case between the American Blacks and The European Americans in the nineteenth and early twentieth centuries. In the situation where one cultural group dominates the resources of the society to the extent that it prohibits further development of another cultural group, then the dominated group may do the following: If it subjects an economic development alternative (which demands the cooperation of the other group) to the social decision institution and it is rejected, then that cultural group may choose to change the social decision institution. Such a decision is made subject to the group's decision institution and must hold a greater expectation of economic development than the alternative of preserving the status quo. Note that the probability of having the original cooperative alternative implemented (once the institutional change occurs) is also included in the expectation.

Choosing to alter the social decision institution is the commitment of a particular combination of activities and resources on every member's part. If this economic endeavor should meet with success then the social decision institution is changed and the development process continues. If the endeavor fails, then the cultural group is faced with this new information and may again investigate the alternative of committing a new combination of activities and resources as against preserving the the status quo. This process continues until either the sought-after institutional change comes about or the group chooses to preserve the status quo. This analysis may be extended to societies containing more than two cultural groups. Of course, in this and all of the above cases, a cultural group or individual member may withdraw (migrate, commit suicide) from any society. Likewise, in light of new information (an alteration

of the knowledge set), an individual may alter his economic normative set in order that it may be in harmony with the others in society. This alteration of the individual's knowledge set that causes changes in the economic normative set, may come about through the individual's experiences or intellectual activities.

The economic development process may also be extended to the nation-state level. When societies become aware of development opportunities which require the cooperation of other societies, they undertake a similar process of establishing integrative institutions of communication, decision and economic activitiy. The conventional economic integration concept of Chapter III would be included in the establishment of those institutions which integrated economic activity at this level.

The economic development process is clearly reliant on integration as well as the ideals, activities and resources of individuals and societies. The implications of the analysis for policy making are discussed in the following chapter.

CHAPTER V

CONCLUSION

The process of economic development in an institutional framework is not entirely new. Economic development scholars have been turning increasingly towards structualism. However, as was indicated in Chapter II, these efforts seem to lack an analytical framework. Chapter IV attempted to provide such a framework. Its empirical performance has not undergone a rigorous test but there is no doubt that it is empirically applicable.

The implementation would begin with an assessment of the economic development of a particular society. This would be accomplished by having an anthropological study done of the economic normative set - the ideals of material culture. An assessment would then be made of the prevailing economic reality - products and resources. The level of economic development would be indicated by the difference between the two. If the society was pluralistic then this would have to be done for all cultural groups.

The development picture would not be complete at this point. A study of the relevant communication, decision and economic institutions would have to be made and a distinction made as to whether they were restrictive or not. An estimate of the degree of restriction would be helpful for ordering them. Such an estimate could be based on the type of activity and number of people involved. An estimate of the uncertainty factor would complete the required data to evaluate the society.

A possible measure of uncertainty would be the variance of the expected outcome of economic development plans and the actual outcome.

At this point, it would be possible to conduct a cost analysis of resource usage. If externalities exist, and they usually do, the important ones would be identified. This information would be used later in considering institutional change. If the analysis reveals inefficiencies, these would be remedied if possible. If institutional constraints prevented this, then changing these institutions should be considered along with the other restrictive institutions.

A cost-benefit study of institutional change may be done here. Worthwhile changes would be submitted to the society's decision institution. If approved, the society would be undertaking economic development brought about by the establishment of integrative economic institutions (explained in Chapter IV). If the suggested institutional change is not approved, then it may be dropped. However, if it is through ignorance that the suggestion was defeated, then the development authority may establish a program of social change depending on the results of a cost-benefit analysis.

A program of social change is really an attempt to integrate the economic normative sets of the members of a society. In a homogeneous society, this problem would not arise since the economic normative sets are similar. The first aspect of the program must be a communicative or educative one. Formal communicative institutions would have to be established if the individuals or cultural groups were significantly different. This may mean special schools, languages or any such institution. As the knowledge sets expand, the probability is that the economic normative sets will be altered. The development authority may take surveys to estimate the acceptability of the suggested institutional change.

The more pluralistic the society is, the more resources that will have to be utilized in achieving this goal.

If after all of this has been undertaken, or if the cost-benefit analysis, above, suggested otherwise, then the development authority could attempt to alter the social decision institution. Such an endeavor may be accomplished in a number of peaceable or violent ways. The social ethics and revolutionary aspects of this form of social change and (resulting) economic development are possible areas for further interdisciplinary research.

Because members of a homogeneous society tend to have similar knowledge and economic normative sets, it is unlikely that the drive for economic development would result in such social upheaval. Furthermore, the characteristics of a homogeneous society would necessitate simpler social decision institutions than pluralistic societies.

Other general implications of the framework are: One, societies with relatively limited resource sets would benefit from inter-society integration. That is, small countries, such as the Caribbean nations, would benefit from international socio-economic integration provided that intra-nation integration is taking place. Two, the more alike the economic normative sets are, the more rapidly will the developmental benefits of integration be experienced. Three, as a society's population increases so do the uncertainty factor in the society's developmental efforts. This is due to the increased probability of differences in the members economic normative sets. This increased uncertainty may encourage the establishment of new institutions, consuming resources and slowing the society's development. And four, because the economic normative set, and to a greater degree, the activity and resource sets are all direct functions of the knowledge set, it may be concluded that the more an individual knows,

the more is he capable of developing. Conversely, if one is kept in ignorance, then one's development is being retarded.

All four of these implications are empirically testable and, although being outside of the objectives of this dissertation, are appropriate areas for further research. A testing of the first implication would be of relevance to the Caribbean Community, CARICOM. The second implication is really a test of the hypothesis that the greater the degree of homogeneity, the more rapidly a society develops. The third implication is testable providing a good measure of social uncertainty is found. Perhaps, it could be the variance between national development plans' objectives and their actual accomplishments. The fourth implication is fairly well established although from different perspectives.

Although this essay is concluded at this point, the search for the underlying truths of the economic development process will continue. The large number of hungry and dying children of the world mandate it.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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