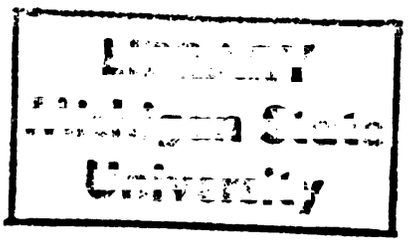

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THE PHILIPPINE PLANNING EXPERIENCE

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THE PHILIPPINE PLANNING EXPERIENCE

By

Efren N. Padilla

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ABSTRACT

THE GROWTH CENTER STRATEGY TO REGIONAL DEVELOPMENT:
THE PHILIPPINE PLANNING EXPERIENCE

By

Efren N. Padilla

The purpose of this study is to examine the results of the continued application of the growth center theory as a model for the functional integration of national and regional economies in the Philippines.

Secondary sources of data were collected from data sets produced by the National Economic and Development Authority (NEDA), National Census and Statistics Office (NCSO), Philippine Ports Authority (PPA), and Central Bank (CB).

An analysis of the status of the Philippine economy is carried out with particular reference to national and regional growth profile, tertiarization, and externalization of national and regional economies. Sectoral analysis, regional employment analysis, foreign trade profile, and regional trade statistics are used to provide a descriptive analysis of the Philippine economy after over a decade of experience under the growth center doctrine.

The significant findings of this research include the following:

(1) From 1973 to 1974, the Philippine economic growth has been tapering off, registering an average annual rate of 7 percent in 1973-1976 quadrennium, slowing down to 6 percent in 1977-1980 quadrennium, and plunging below 1 percent in 1981-1984 quadrennium.

(2) After over a decade of growth center experience, regional share to national output has remained inequitable and unbalanced with Metro Manila taking the lion's share (one-third of the total GDP). Southern Tagalog and Central Luzon, the next top contributors to national output, are next door neighbors to Metro Manila and also the top industrial regions of the country.

(3) The three identified growth areas make for an interesting combination: Metro Manila is basically industrial and service-oriented, Southern Mindanao is basically agricultural, and Central Visayas is basically service-oriented. Metro Cebu's central location in Central Visayas makes for a convenient distribution center of Metro Manila's industrial products and Southern Mindanao's agricultural supply. Over a decade of growth center experience has not altered this structural relationship. Central Visayas remains the distribution center of Southern Mindanao's agricultural supply and Metro Manila's industrial products.

(4) Along with the stubborn dispersal of industrial growth and economic development to the less developed areas comes a trend of concentration of economic resources toward the service sector. From 1973-1984 the sector sector has been the largest component of national output.

(5) The drift toward the service sector of the national economy cannot be separated from the phenomenon of external dependence. The industrial shortfall due to tertiarization has strengthened the Philippine economic dependence on foreign commodities as it looks for external sources of industrial inputs. From 1974 to 1984, the balance of trade has consistently been negative.

Finally, the study shows that after a decade of growth center experience, the Philippine economy has not attained growth and equity nor has it functionally integrated peripheral regions to designated growth centers. The study also shows that the growth center strategy has failed to counteract the growing tertiarization and externalization of national and regional economies. From this vantage point, it is suggested that the functional and unequal approach of the growth center doctrine to development can no longer be upheld in the Philippines. It is implied that regional planning in the Philippines should, at the minimum, pursue both territorial and decentralized forms of regional planning.

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INTRODUCTION

Problem of the Study

The problems of regional[1] theory are most clearly accentuated by the search during the past decade for policies and strategies to ameliorate the growing regional inequality among developing economies. This is significantly true when polarization of industrial activities in developed regions continues to such an extent that other regions lag far behind that of the developed regions. The polarization effect has not only brought an increase in per capita income in developed regions vis-a-vis lagging regions but also encouraged the depopulation of lagging regions and in-migration into the developed regions. Consequently, these trends have aggravated the limited absorptive capacities of the developed regions as indicated by net diseconomies and urban problems such as transportation congestion, high cost of health care, physical deterioration, violence, slums, and displacement of human resources.

The polarization of population and economic activities in developed areas had been bound up with the continued application of growth centers in regional economic development. The growth center approach to regional development has gained considerable interest in the past decade both as a theoretical and a policy tool of

administrators, economists, and planners who subscribe to the idea of unequal development. Interestingly, the contemporary interest in growth centers emerged from the well-known thesis of poles de croissance (growth poles) propounded by Francois Perroux in 1955. Perroux proposed that development implies a dominant economic unit that can induce expansion to other units which will eventually create structural change in the economy.

It is from this vantage point that regional theorists' affinities to Perroux found expression and articulation in the idea of unequal development. The regional dualism of developing economies has found justification from some regional theorists who hypothesize that the dominant economic activities of the developed region will eventually trickle down to the periphery. For instance, Harry W. Richardson assumes that:

> (i) the onset of industrialization in a national economy is based upon economic expansion in one, two or a few limited regions, leaving the rest of the economy relatively backward; (ii) subsequent national economic development is associated at some stage with dispersion into other regions, a process which tends to integrate and unify the national economy; (iii) independent of the polarization and subsequent dispersion tendencies interregionally, growth within regions always tends to be spatially concentrated, in the sense of a close degree of interdependence between industrial development and urbanization and a focus of growth potential upon the limited set of large urban centers.[2]

Another regional theorist who advances this notion is Albert O. Hirschman, whose position is aptly revealed by these statements:

> . . . we may take it for granted that economic progress does not appear everywhere at the same time and that once

> it has appeared powerful forces make for a spatial concentration of economic growth around the initial starting points. Why substantial gains may be reaped from overcoming the friction of space through agglomeration has been analyzed in detail by the economic theory of location. In addition to the locational advantages offered by existing settlements, others come from nearness to a growing center where an industrial atmosphere has come into being with its special receptivity to innovations and enterprise.
>
> . . . there can be no little doubt that an economy, to lift itself to higher income levels, must and will first develop within itself one or several regional centers of economic strength. This need for the emergence of growing points or growth poles in the course of the development process means that international and inter-regional inequality of growth is an inevitable concomitant and condition of growth itself.
>
> Thus, in the geographical sense, growth is necessarily unbalanced. However, while the regional setting reveals unbalanced growth at its most obvious, it perhaps does not show it at its best. In analyzing the process of unbalanced growth, we could always show that an advance at one point sets up pressures, tensions, and compulsions towards growth at subsequent points.[3]

However, there is a wide area of disagreement among regional theorists regarding the merits of the above-mentioned thesis. Gunnar Myrdal questions the equilibrating mechanism of an unbalanced economy. Myrdal's well-known thesis is that economic development having started in designated areas would result in a process called circular causation. This means that the play of market forces in a dualistic economy widens rather than diminishes inequalities among regions. Through the process of spread and backwash effects (that is, the positive and negative consequences of designated growth points to other areas), the polarization of regions would concentrate economic activities on the designated growth area because of its cumulative and competitive advantages

over the other regions. Such advantages would cause more backwash rather than spread effects.[4] This contention is supported by John Friedmann, who after many years of working with the theory of polarized development acknowledged that,

> . . . the spatial dimension of growth center doctrine rests on a number of doubtful propositions. In addition to unwarranted assumptions about the spatial incidence of multiplier effects, a good deal of nonsense has been written about the spatial diffusion of economic growth.[5]

To some extent, this study is an attempt of the present writer to participate in the continuing debate on the merits of unequal development. Specifically, this study wishes to address the growth center doctrine as a planning strategy in a developing economy.

Purpose of the Study

The main purpose of this study is to examine the results of the continued application of the growth center theory as a model for regional development in the Philippines. The study aims to present the growth profile, regional inequality, and growing national and regional trends that characterize the Philippine economy after over a decade of growth center experience. Specifically, this is done by examining data on:

(1) national and regional growth

(2) tertiarization of national and regional economies

(3) externalization of national and regional economies.

Limitations of the Study

The nature and purpose of the study does not attempt to establish a cause and effect relationship between the current adopted growth center doctrine vis-a-vis national and regional growth, tertiarization, and externalization of national as well as regional economies. However, using government data produced by agencies such as the National Economic Development Authority (NEDA), National Census and Statistics Office (NCSO), Central Bank (CB), and Philippine Ports Authority (PPA), the study presents a secondary analysis of the status of the national and regional economies after more than a decade of growth center experience.

Another limitation of the study is the time period of the analysis. The investigation of the study encompasses the martial law and post-martial law era in Philippine history. This period saw the height of the legitimation and institutionalization of the growth center approach in Philippine national and regional planning policies. Martial law was declared by the now-deposed Philippine leader Ferdinand Edralin Marcos on September 21, 1972. In the same year, the Philippine military government adopted the growth pole approach of regional development as indicated in the various documents such as The Physical Perspective Plan for the Philippines[6] and Study of Growth Centers and Areas for Future Urban Expansion in Land Reform Areas.[7]

The country was divided into eleven regions and eventually twelve regions (to accommodate the Secessionist Movement in

southern Mindanao) with the regional capital of each region designated as growth center. Moreover, the designation of a growth center for each region corresponds to a higher hierarchy referred to as the Tripolar Urban Strategy. The rationale behind this strategy is the simultaneous development of two urban areas to act as counterpoles to Metro Manila. The rationale is based on the assumption that these urban poles will have spread effects on the surrounding regions in terms of economic development.

This study covers a period from 1973 to 1984. The choice of a time factor is set a year after the policy was adopted to ascertain the availability and accessibility to data sets pertinent to the study being pursued.

CHAPTER II

REVIEW OF RELATED LITERATURE

The literature has been classified under several headings for purposes of order in presentation. Although some of the studies deal with more than one of the headings, the headings themselves are not mutually exclusive. The background of the growth pole theory is presented first, followed by more detailed description, interpretations and variations of the theory, and then discussions based upon particular applications.

Background of the Growth Pole Theory

Francois Perroux (1950), the founding father of the French school of space economics, originated the concept of pôles de croissance (growth poles) along with related concepts such as leading firms, key industries, and leading industries. He defines growth poles in relation to abstract economic space rather than geographic space. He argues that economic space as an abstract field of forces leads to the notion of a vector of economic forces and thus to the concept of growth poles. He views the pole as a protuberance sticking up from a homogeneous surface, hence polarization becomes the process of the enlargement of the pole.

For Perroux there are three types of economic space:

(1) space as defined by a plan

(2) space as a field of forces

(3) space as a homogeneous aggregate.[8]

It is the second type that Perroux conceptualizes the growth pole. As he clearly states,

> . . . economic space consists of centres (or poles or foci) from which centrifugal forces emanate and to which centripetal forces are attracted. Each centre being a centre of attraction and repulsion, has its proper field, which is set in the field of other centres.[9]

Therefore in its general sense, poles are likely to be firms or industries that can induce expansion in the surrounding areas. However, for the pole to be propulsive, the firm or industry must have a high interaction with other firms, a high degree of dominance, and great size. It is because of these broad qualifications and inadequate details that Perroux's growth pole theory has been subjected to different interpretations.

Mark Blaug (1964) suggests that Perroux's exposition on growth poles such as "leading sectors," "leading firms," and "points of growth" is contained in his theory of economic domination. The basic theme of this theory is premised on the idea that domination is present whenever, between any two economic units, unit A exercises on unit B an irreversible or assymetric effect.[10] Since rapidly growing firms or industries radiate an irreversible or assymetric effect upon another economic unit, the study of points of growth is nothing else but the study of dominant economic units.

Blaug, however, added that Perroux's theory of economic domination underwent different shifts of meaning:

> In its first phase, it consisted of a facile and . . . generalization of what everyone calls "monopoly power." In its second phase, the welfare implications were given a Schumpeterian twist by linking the idea of dominance to the impulse to innovate. In its last phase . . . identifying dominant economic units with points of growth.[11]

It is in the last phase that Blaug argues the theory becomes impregnable. Although Blaug recognizes a number of applications of the notion of economic domination, especially in the international trade, he is generally critical of the scope and generalizations of the theory. He concluded:

> . . . the theory of economic domination, whatever its validity, has proved particularly inspiring of further work. One might even argue that it has discouraged exploration of the game--theoretic problems of bargaining and strategy. Intellectual history supplies many examples that suggest that premature generalization stultifies rather than promotes theoretical progress. Something like this happened to Marxism because Marx provided the all-embracing social science at a time when most of the social sciences were too underdeveloped to sustain a fruitful interdisciplinary approach. The general theory of economic domination still awaits its Newton. Surely, it is not yet ready for its Einstein.[12]

Niles Hansen (1967) argues that much of the confusion in the use of the growth pole theory lies in the imprecise and contradictory definitions of the term. A great deal of this confusion arises because of the application of the concept in the context of abstract, non-geographic space. Sometimes it is also used in a geographic space and yet at other times it is used relatedly with both abstract and geographic space. But Hansen still insists that the theory represents a potential promise in the development of

regions. The theory's main concepts, such as propulsive firms, key industries, dominance, points of growth, etc., are still significant and useful on the assumption that economic growth is basically unbalanced.

Hansen proposes that the growth pole theory might be applied to regional problems if it can be regarded as a conditional theory of regional growth. That is, the relevance of the theory to concrete regional case must be studied and evaluated on the basis of the nature and prospects of the particular regions, or types of regions in question. As he pointed out:

> Thus, the policy implications of the disequilibria involved in the growth process, and the various and complex ways in which growth may be transmitted (or inhibited) may vary from place to place and over time for any given place. Further progress in relevant theoretical refinements and classifications therefore will probably depend upon the extent to which they are associated with systematic empirical studies of growth at the regional level. France's new system of regional planning institutions and the regionalization of the government's budget should provide unique opportunities in this regard. For example, French regional policy is now giving priority to eight "metropolis d'equilibre," primarily in the form of increased promotion of infrastructure and tertiary activities, in order to balance the growth of the Paris region and to create provincial development poles. This means, of course, that the polarization process is being treated increasingly in terms of external economics rather than more direct means to attract industry, e.g., investment subsidies, and that industrial growth is being regarded increasingly as an effect, as well as a cause, of economic development.[13]

Interpretations and Variations of The Growth Pole Theory

W. Christaller (1933), anticipating the character and specialized role of the urban system, formulated the central place theory.

According to this theory the growth of the city lies in its central specialized function to the region surrounding it. By centrality, he refers less to the spatial aspect of the location but more on the central goods and services it provides in many scattered areas. In contrast to the central place, he categorizes the non-center to include:

(1) areally-bound ones--those settlements the inhabitants of which live on their agricultural activities

(2) point-boundaries--those settlements the inhabitants of which make their living from resources found at specific locations such as mining settlements and health resorts

(3) settlements which are not bound to a central point, an area, or an absolute point such as monastery settlements.[14]

For Christaller the central place primary function is to act an as urban service function to peripheral areas, supplying them with central goods and services such as banking, state administration, cultural and spiritual offerings, professional services, business organizations, transportation, and sanitation. Furthermore, these central goods and services can be ranked into higher and lower orders, which becomes the basis of the hierarchy of central places (see Table 1).

W. Arthur Lewis (1954) in his article "Economic Development with Unlimited Supplies of Labor" proposed an economic expansion through the process of a capitalist surplus. Being an advocate of the theory of disequilibria and the viability of a leading sector in regional development, he assumed that an economy consists of a "capitalistic sector" and "subsistence sector." As he noted:

Table 1. Types of Central Places in Southern Germany

Type	Population (Approx.)	Number of Telephones	Centrality*
H-Auxiliary	800	5-10	-0.5-+0.5
M-Market	1,200	10-20	0.5-2
A-Officetown	2,000	20-50	2-4
K-Countrytown	4,000	50-150	4-12
B-Main District	10,000	150-500	12-30
G-Administrative Offices	30,000	500-2,500	30-150
P-Provincial Capitals	100,000	2,500-25,000	150-1,200
L-Land Centers	500,000	25,000-60,000	1,200-3,000
RT-District Cities	1,000,000	60,000	3,000
R-National Capital	4,000,000	?	?

Source: Walter Christaller, Central Places in Southern Germany, 1966.

*All places which have a centrality (the rough measure of which is defined as $Z_z=T_z-E_z(T_g/E_g)$, in which T_z and T_g are the numbers in units of ten of telephones in the central place and region respectively, and Eg is the number in units of 400 of inhabitants of about -0.5 to +0.5, which will be regarded as indicating neither a great surplus of importance nor a great deficit of importance, may be designated as auxiliary central places.

> The capitalist sector is that part of the economy which uses reproducible capital, and pays capitalists for the use thereof. (This coincides with Smith's definition of the productive workers, who are those who work with capital and whose product can therefore be sold at a price above their wages.) We can think, if we like, of capitalists hiring out their capital to peasants; in which case, there being by definition an unlimited number of peasants, only some will get capital, and these will have to pay for its use a price which leaves them only subsistence earnings. More usually, however, the use of capital is controlled by capitalists, who hire the services of labour. The classical analysis was therefore conducted on the assumption that capital was used for hiring people. It does not make any difference to the argument, and for convenience we will follow this usage. The subsistence sector is by difference all that part of the economy which is not using reproducible capital. Output per head is lower in this sector than in the capitalist sector, because it is not fructified by capital (this is why it was called "unproductive"; the distinction between productive and unproductive had nothing to do with whether the work yielded utility, as some neo-classicists have scornfully but erroneously asserted). As more capital becomes available more workers can be drawn into the capitalist from the subsistence sector, and their output per head rises as they move from the one sector to the other.[15]

It is obvious from these statements that the supply of labor from the subsistence sector is unlimited as long as real wages in the capitalist sector are higher. This implies that the continued expansion of the capitalist sector would lead to the absorption of the labor force from the traditional economic activities. As Lewis pointed out:

> . . . Insofar as this is reinvested in creating new capital, the capitalist sector expands, taking more people into capitalist employment out of the subsistence sector. The surplus is thus larger still, capital formation is still greater, and so the process continues until the labour surplus disappears.[16]

Douglass C. North (1955), in line with the central place theory and Lewis' thinking, argues that while the shift from agricultural base to industrial base has been looked upon as difficult, it is an indispensable step for sustained economic growth. North points out that the way in which a region grows is tied up in the significance of the export base in shaping the development of a region. He categorizes the regional economy into residentiary and export base sectors. By residentiary, he means an industry for the local market which develops where the consuming population resides and is entirely dependent on demand within the region, while the export-base refers to the propulsive force in economic growth relying primarily on exportable commodities as bases for developing the regional economy. North argues that the success of the export base is the determining factor in the rate of growth among regions because it is responsible for attracting "multiplier effects" that would lend to the expansion of the export industry and development of new economic activities.

As the export base sector expands and other economic activities are generated, North assumes that some sort of "balance" among regions would emerge. As he points out:

> As a region's income grows, indigenous savings will tend to spill over into new kinds of activities. At first, these activities satisfy local demand, but ultimately some of them will become export industries. This movement is reinforced by the tendency for transfer costs to become less significant. As a result, the export bases of regions tend to become more diversified, and they tend to lose their identity as regions. Ultimately, we may expect with long-run factor mobility more equalization of per capita income and a wider dispersion of production.[17]

Gunnar Myrdal (1957) criticizes the idea of the equilibrating mechanism of an unbalanced economy. Observing that economic development having started in designated areas would result in a process called circular and cumulative causation, he asserts:

> The system is by itself not moving toward any sort of balance between forces but is constantly on the move away from such a situation. In the normal case a change does not call forth countervailing changes but, instead, supporting changes, which move the system in the same direction as the first change but much further. Because of such circular causation, a social process tends to become cumulative and often to gather speed at an accelerating rate.[18]

Generally, Myrdal conveys the notion that the play of market forces tends to increase, rather than decrease, the inequalities between regions. For example, he assumes that expansion in one locality has "backwash effects" in other localities.

> More specifically the movements of labor, capital, goods and services do not themselves counteract the natural tendency to regional inequality. By themselves migration, capital movements and trade are rather the media through which the cumulative process evolves--upward in the lucky regions and downward in the unlucky ones . . . if they have positive results for the former, their effects on the latter are negative.[19]

However, Myrdal admits that there is an expansionary momentum which he calls "spread effects" that can stimulate growth in other regions. But he insists that:

> In no circumstances, however, do the spread effects establish the assumptions for an equilibrium analysis. In the marginal case, the two kinds of effects will balance each other and a region will be "stagnating." But this balance is not a stable equilibrium, for any change in the forces will start a cumulative upward or downward effect.[20]

Albert O. Hirschman (1958) proposes the idea that for an economy to lift itself to higher income levels it must develop one or more regional centers of economic strength called the "growing points." These growing points entail that growth will necessarily be unbalanced. Hirschman uses the terms "polarization" and "trickling down" which he claims correspond to Myrdal's "backwash" and "spread" effects to explain the favorable and unfavorable effects of a developed region. With more faith in the play of market forces, he argues that a growth center will eventually trickle down to surrounding economies which will lead to the eventual integration of labor, market, resources, and capital. His position is aptly presented in these statements:

> . . . once growth takes a firm hold in one part of the national territory, it obviously sets in motion certain forces that act on the remaining parts. In examining these direct interactions, we should call "North" the region which has been experiencing growth and "South" the one that has remained behind. This terminology is suggested by the fact that a large number of lagging areas, at least in the Northern Hemisphere, appear to be located in the southern parts of the countries to which they belong. The term "South" as used here does not include undeveloped, i.e., largely unsettled areas.
>
> . . . the favorable effects consist of the trickling down of Northern progress: by far the most important of these effects is the increase of Northern purchases and investments in the South, an increase that is sure to take place if the economies of the two regions are at all complementary. In addition, the North may absorb some of the disguised unemployed of the South and thereby raise the marginal productivity of labor and per capita consumption levels in the South.
>
> . . . several unfavorable or polarization effects are also likely to be at work. Comparatively inefficient, yet income-creating, Southern activities in manufacturing and exports may become depressed as a result of Northern competition. To the extent that the North industrializes along lines in which there is no Southern production, the

> South is also likely to make a bad bargain since it will now have to buy Northern manufactures, produced behind newly erected tariff walls, instead of similar goods previously imported from abroad at lower prices.[21]

John C. H. Fei and Gustav Ranis (1964) in a Lewisian note also recognize the dualistic feature of a less developed economy. These two sectors are the subsistence agricultural sector and the commercialized industrial sector. The former is a relatively large and overwhelmingly stagnant sector characterized by widespread disguised underemployment and high rates of population growth, while the latter is a relatively small but growing sector in which competitive conditions obtain in the input markets.

According to the authors,

> The labor surplus nature of such a dualistic economy is underlined by the fact that, given existing production conditions in the two sectors, labor is a non-scarce factor while capital is extremely scarce, a condition accentuated at the margin by intense population pressures, on the one hand, and low rates of savings, on the other.[22]

The authors assume that the reallocation of the population between the two sectors and the gradual expansion of the industrial sector will permit economic development for these dualistic economies. They argue that:

> . . . in such economies the center of gravity must continually shift toward industry through the continuous reallocation of labor from the agricultural to the industrial sector; the related criterion of "success" in the development effort is thus a rate of industrial labor absorption sufficiently rapid to permit the economy to escape the ever-threatening Malthusian trap.[23]

John Friedmann (1967) in his article "A General Theory of Polarized Development" discusses the deficiencies of existing

regional theories in guiding changes in societal systems. Specifically, he reviews the classical location theory and spatial organization theory. The former, Friedmann argues, has been developed to include industrial complex analysis which, in turn, has led to the theory of growth centers as proposed by Francois Perroux. He also considers the classical location theory as deficient because its concern is essentially with point locations rather than regional (or spatial) systems. The link between the location of economic activities (microtheory) and the development of a system of regions (macrotheory) which is essential in spatial analysis has been neglected. The latter, on the other hand, remains questionable because its conceptualization is based in terms of a general equilibrium theory.

From this vantage point, Friedmann attempts to formulate a theory of the development process in its spatial dimension. Dissatisfied with the limitation of the notion of growth pole, he coins his center of innovative change, core regions. Reminiscent of Christaller's central place theory, Friedmann advocates a polarized development in a hierarchy of spatial systems organized in a core-periphery relationship. As he aptly defines it:

> Major centers of innovative change will be called core regions; all other areas within a given spatial system will be defined as peripheral . . . core regions are territorially organized subsystems of society that have a high capacity for innovative change; peripheral regions are subsystems whose development path is determined chiefly by core region institutions with respect to which they stand in a relation of substantial dependency.[24]

The actual working out of core-periphery relations may be understood through the effects of the core region growth.

> In the final analysis, however, the further growth of core regions is constrained by the tensions that tend to build up from the ever more visible discrepancies in the rates of expansion and modernization between core and periphery. The increasing flow of information from core to periphery, together with an aroused awareness of the conditions of their own dependency on the part of potentially modernizing elites in the periphery, produces conflict with core region authorities over the extent of permissible autonomy. This conflict, capable of seriously affecting the social bases of integration in a spatial system, may have four possible outcomes: first, the violent repression of peripheral elites by the core so that the existing spatial system is maintained even though its overall potential for growth may decline; second, the neutralization of peripheral elites, a process that may occasionally lead to a gradual, if inadequate, modification of the system's authority-dependency structure; third, the replacement of core region elites by peripheral elites followed by either the acceleration of system-wide growth (where the new elites are dedicated modernizers) or stagnation and even retrogression (where the new elites follow a traditional orientation); and fourth, the cooptation of peripheral elites by core region elites, leading to a more equitable sharing of powers that may be accompanied by a process of political and economic decentralization and the creation of new, or the expansion of already existing, core regions in the periphery. Under cooptation, the authority-dependency relations between cores and their peripheries are likely to diminish and may eventually disappear altogether except for relatively minor enclaves of economic backwardness located in the interstitial areas or in limited urban sectors in the cores themselves.[25]

Harry W. Richardson (1969) tries to outline some of the interrelationships between the growth point and its zone of influence. This is based on the argument that growth pole concept as a policy tool necessitates a disproportionate allocation of public investments for infrastructure purposes at the growth pole itself.

(1) The existence of a growth point must involve a certain degree of structural imbalance over the region as a whole

(2) The key industries emphasized in growth pole discussions are probably export industries

(3) The growth pole services its surrounding areas by providing supplies of goods and services that need a high minimum population threshold for viability

(4) The growth pole has a socio-economic function affecting prevailing attitudes to the desirability of economic growth.[26]

These interrelationships must be assumed for the growth pole theory to have success as a planning tool. As Richardson argues:

> . . . even in a free market economy we find unbalanced growth spatially. Industrial activity, establishments supplying public utilities and other services that require a high population threshold for viability, and population expansion itself will cluster around certain focal points. The operation of market forces will have selected these focal points because they have locational advantages--access to raw material sources or markets, unique non-transportable facilities, or favorable topographical features. These growth centres have influential effects on economic activity in the region where they are located. Their expansion may divert activity from peripheral areas which may lose population and fail to gain a proportionate share of capital and entrepreneurial talent, but from the point of view of the region as a whole this diversionary tendency will be more than offset by induced economic expansion in the zones of influence surrounding each centre.[27]

J. R. Lasuen (1969) in an attempt to develop the spatial aspect of the growth pole generated by Perroux and Hirschman argues that:

> . . . the polarizations in geographic space today tend to be smaller than in the past because the transformation that has occurred in the form of business firms dilutes the geographical polarizations that development still produces in other topological spaces. By implication,

> then, an efficient way to alter geographical polarizations is to act upon the organizational structure of the business firms.[28]

In acting upon the organizational structure of the business firms, Lasuen suggests that what is required is the creation of stronger interrelations between all plants across all topological spaces. This can be done by consolidating all plants into large multiplant/multiproduct/multicity firms and/or by fostering interfirm linkages. Still, words of caution were laid out by Lasuen:

> First whether to diversify the large firms or to produce business integration through specialized interfirm contracts is a matter that depends greatly on the supply of qualified business executives who are scientific, energetic, willing to adapt and social-minded. . . . Second business integration . . . has to be pursued in such a way as to achieve higher levels of price and product competition. . . . Third, the size of the country market should not condition the pattern of business organization excessively in most countries. . . . Finally, to plan for single region development . . . the emphasis should be placed on promoting firms catering for the final market and fostering them to branch out into other activities and, through different type contracts, helping to set up other firms in market-related activities.[29]

D. F. Darwent (1969) reviews the accumulation of literature on growth poles and growth centers in regional planning. He observes that the concept has been used in vague and oversimplified ways that necessitate an evaluation of their usefulness and their contribution in explanatory and in normative sense.

From an explanatory sense, Darwent argues that discussions on growth pole have been somewhat myopic, focusing on "the direct links between a hypothetical industry and a few others in an economy assumed to be closed, to the total neglect of the enormous

amount of background variation and indirect linkage taking place."[30] He also argues that the growth center notion is of limited help in trying to describe the realities of the occurrence and spatial distribution of economic and social development. This is made more difficult by the fact that the conditions hypothesized in the theory are "inadequate to determine a growth from a non-growth situation, and the criteria developed are insufficient to identify between a growth center and a non-growth center, either in the present or in the (normative) future."[31]

Still, Darwent insists that it is in the normative sense that the theory has its significant potential. Specifically, he hails Friedmann's formulation as heuristically attractive and theoretically promising.

> The center-periphery concept . . . as described by Friedman . . . is the most promising direction reviewed. By dealing with the whole of economic space in a given region, rather than particular points or areas of it, and by defining sub-regions of the periphery in terms of the problems for which solutions are sought, it is a valuable step towards the prescription of policies for the distribution of economic and social development given a set of goals. The links developed between the model and the empirical regularities observed at different states of economic development are attractive as a theory of the spatial distribution of development through time. Attempts to consider other than economic variables in this context are moves in the right direction.[32]

Walter Isard (1972) in his Puerto Rican industrial location study expands the role of the classical location theory by developing an optimal location through an industrial complex that would integrate the regional economy. This emphasis on strategic industrial sector and urban primacy demonstrates certain affinities with

Perroux's theory. Operating under the assumption of an urban-industrial based development, Isard contends:

> Very often groups of economic activities, when located in proximity to one another, gain economic advantages from production, marketing, and other interrelations. The location of an integrated iron and steel works frequently leads to the establishment nearby of numerous firms manufacturing fabricated metal products. The establishment of a major electronics manufacturer often attracts smaller parts producers whose outputs of components become inputs to the larger firm. Through this process, a complex of related industries may come into existence. The complex concept may be particularly applicable to the iron and steel industries, the electronics industries, the petrochemical industries, aerospace-related industries, and the textile industries. In any one of these groups of industries, say the petrochemical, the per unit cost of output can be reduced or net value of sales increased by the proximity of the interrelated industries. If a metal fabricator uses sheet steel as an input, it is often in his interest to be located close to the steel mill in order to reduce the delivered cost of the required input. The mill itself finds such a situation advantageous for it assures a higher volume demand for its output and hence may well lead to increased output. With increased output from the mill, more economies of scale may be achieved. For these two firms, and others which may be drawn to this mutually advantageous situation, spatial juxtaposition economies occur. Perhaps no single firm could profitably operate in isolation in such a case, yet with the establishment of a complex, all can gainfully produce.[33]

He further adds that there are at least three major aspects of the industrial complex development that one must take into consideration. First, the existence of fine technical and marketing linkages among a series of operations. Second, investigating the scale of interrelated activities and evaluating possible locations in terms of the scale economies of the whole set of activities. Finally, examining how total revenues of a complex change, as the

mix of activities changes, when the demands for the services of these activities are highly interdependent.[34]

Douglas Paauw and John Fei (1973) in their book The Transition in Open Dualistic Economics[35] revive Douglass North's export-base theory. Their version includes the analysis of four Southeast Asian countries (Malaysia, Philippines, Taiwan, and Thailand) in a triangular pattern of interaction among agriculture, industry, and the foreign sector. Reminiscent of the Rostownian "take-off," both propose the idea that a primary task of transition growth is to integrate these two insulated parts (these are the modern, export-oriented enclave and the traditional, agricultural sector) into a national economy through the promotion of sectoral interaction.

The interaction between the two enclaves can be analyzed from these three modes of operations: import substitution, export promotion, and export substitution. Import substitution is a mode of operation where the industrial sector is girded toward the domestic market to replace traditionally imported consumer goods. Import substitution policy is usually represented by nationalistic trade policy designed to curb foreign imports. On the other hand, export promotion orients the industrial sector toward the domestic market but output consists of goods and services for stimulating the expansion of primary product exports. This mode of operation assumes that the country's natural resources are enough for the continued utilization of land-based exports. They assert that export promotion demonstrates the colonial mode of operation and is

likewise typically supported by a perpetuation of the free market economy. While the export substitution growth based on the industrial sector is girded toward the foreign market, its output consists of labor-intensive manufacture in which the country is regarded to enjoy comparative advantage. This phase represents a dramatic departure from the internal industrial orientations of the past, based upon the acquisition of sufficient entrepreneurial skills to penetrate export markets.

It is from this vantage point that the authors strongly prescribe export-substitution policies and strategies in developing Third World economies. This prescription is summarized in these statements:

> The economy's mode of operation under export substitution hinges on the intersectoral allocation of labor through which the abundant supply of surplus labor in the traditional agricultural sector is made available to industry. This enables the industrial sector to develop the capacity to export labor-intensive goods to the foreign market. Thus, export substitution growth is a phenomenon unique to the labor-surplus type of open dualistic economy. The appearance of labor-intensive industrial exports during the transition signifies a shift from land-based to labor-based growth.
>
> Export substitution emerges from the natural termination of import substitution growth and the fulfillment of two more positive growth conditions. The first condition is the development of market-oriented and efficiency-conscious entrepreneurship. Such entrepreneurship can exploit the economy's labor surplus through labor-intensive innovations and effective competition in the international market. The second condition is modernization of traditional agriculture. Growth of agricultural productivity is essential for the release of labor and food. This enables the industrial sector to acquire labor at a low real cost, i.e., at favorable internal terms of trade.
>
> When these preconditions are fulfilled during the import substitution phase, the emergence of export

> substitution is a natural consequence in a labor-surplus economy. Such a sequence occurred in Taiwan during the postwar generation. Conversely, when one or both of these conditions is not fulfilled, prolonged import substitution or stagnation occur. In the Philippines, the failure of traditional agriculture to modernize led to prolonged import substitution while in Indonesia the lack of entrepreneurial development led to stagnation.[36]

Particular Applications of the Growth Center Strategy

Growth Center Policy in Canada

In response to the growing regional disparities among different provinces in Canada, the government has passed various laws to deal with the problem. The Department of Industry Act of July 1963 and the Area Development Incentives Act of June 1965 empowered the Area Development Agency to undertake research on means of improving employment and income in designated areas. The Atlantic Development Board Act of December 1962 established the Atlantic Development Board for the purpose of financing programs and projects in the Atlantic Region. The Federal Agriculture Rehabilitation and Development Act of December 1961 established the Agricultural Rehabilitation and Devlopment Agency to provide through bilateral agreements with the provincial governments two-thirds, one-half, or one-third of the costs of agricultural rehabilitation projects. This is some of the important legislative background against which the growth pole approach was formulated in Canada. Interestingly, only Quebec is taking seriously the designation of pôles de croissance as a means of improving the economy. The growth pole approach is at the mainstream of planning in Quebec not

only because three-quarters of the French Canadians live in that province,[37] but also because of the influence of French theory and practice in Quebec's planning.

Quebec first tried the growth pole strategy in terms of creating two or three pôles de croissance east of Montreal, assumed to pull industrialization and urbanization eastward from Montreal toward the retarded areas of the province. However, this was not pushed through because the task force appointed by the Ministry of Regional Economic Expansion and the Office of Planning of Quebec to design the growth pole strategy recommended that:

> . . . any regional development policy that might weaken the Montreal economy would be seriously misguided. Rather than trying to attract sophisticated enterprises away from Montreal to establish new development poles further east, policy should be designed to strengthen the Montreal enterprises and to accelerate the new trend toward an improved industrial structure in the satellite cities. The powerful incentives available, in other words, should be used mainly to attract high-productivity, high-growth enterprises to the satellite cities. Most of these enterprises are likely to have head offices in Montreal. Once the economic strength of the Montreal administrative region is assured, the spread effects can be lured further east to Trois Rivieres and Quebec City. Meanwhile, some investments will be needed in other regions of the province to assure that the spread effects are maximized; there must be investment in the transmission lines and in the reactors at the end of the line, as well as in the generator. But with the strategy recommended there would be clear recognition that the Montreal area is the generator. Eventually, with such a process of regional expansion, other cities could pass the threshold dividing "growth poles" from "development poles." Quebec City is the strongest candidate for the first city to make this transition, given its size, charm, the beauty of its site, its excellent university and research institutions, and its port. Probably Sherbrooke, with a vital new university and its role as a subregional central city, would be second.[38]

Growth Center Policy in the United States

The Appalachian Regional Development Act and the Public Works and Economic Development Act of 1965 are considered two of the most important legislative bases of regional policy in the United States. The Appalachian Regional Commission, the agency charged with the implementation of the programs and projects in the Appalachian region,[39] designated areas as principal recipients of growth center investments as shown in Table 2.

The growth center policy of the Appalachian Program corresponds to different priorities that include emphasis on growth areas as service centers and on their potential for developing employment on principal transportation routes for Northern Appalachia; population and employment growth for Southern Appalachia; trade and service functions; plant site availability, and proximity to the Appalachian Development Highway System for Central Appalachia; and tourism and recreation for Appalachian Highlands.[40]

The Economic Development Administration (EDA) which implements the general aims of the latter act is also responsible for providing development aid to redevelopment areas. Redevelopment areas are counties, labor areas, Indian reservations, municipalities that reflect chronic economic distress.[41] Another geographic entity eligible for EDA assistance is the multicounty economic development district. Each economic development district is required to have a growth center that must take into consideration its ties to the

Table 2. Applachian Recipients of Growth Center Investments

Northern Appalachia	
Greater Pittsburgh (Pa.)	$9,883,216
Cumberland (Md.)	4,993,114
Wilkes-Barre-Scranton (Pa.)	4,441,903
Altoona-Johnstown (Pa.)	3,898,746
Binghamton (N.Y.)	3,537,020
Sharon-New Castle (Pa.)	3,498,638
New Philadelphia-Cambridge (O.)	3,368,493
Hornell (N.Y.)	2,717,173
Parkersburg-Marietta (O.)	3,483,329
Williamsport (Pa.)	2,432,975
Huntington-Ashland-Ironton (O./W.Va./Ky.)	N.A.
Hagerstown-Martinsburg (W.Va./Md.)	1,731,948
Elmira (N.Y.)	1,773,357
Erie (Pa./N.Y.)	1,650,000
Charleston (W. Va.)	1,392,211
Southern Appalachia	
Florence-Decatur-Huntsville (Ala.)	$10,454,584
Gadsden-Anniston (Ala.)	7,168,953
Greenville-Spartanburg (S.C.)	4,914,596
Birmingham (Ala.)	3,491,231
Tri-Cities (Tenn./Va.)	2,997,983
Knoxville (Tenn.)	2,344,287
Asheville (N.C.)	2,133,906
Chattanooga (Tenn./Ala./Ga.)	1,860,901
Carrollton (Ga.)	1,869,889
Tuscaloosa (Ala.)	1,771,742
Pontotoc-Tupelo (Miss.)	1,479,529
Central Appalachia	
Cookeville-Crosville (Tenn.)	$3,083,841
Paintsville-Prestonburg-Pikeville (Ky.)	2,859,256
London-Corbin-Middlesboro (Ky.)	2,403,480
Appalachian Highlands	
State College (Pa.)	$1,465,523

Source: The Role of Growth Centers for Growth Areas in Appalachian Development, Appalachian Regional Commission Staff Paper, N.E.

redevelopment areas and its labor force character. The growth center is expected to provide jobs and services to peripheral counties and to encourage in-migration from rural areas to the center. This is based on the assumptions that the growth centers will ease the congestion of big cities and at the same time lift rural areas by their bootstraps by providing them job opportunities.

The U. S. growth center experience goes beyond the limited scope of Perroux's pôles de croissance. It makes the distinction between a growth center, a growth area, and the surrounding hinterlands:

> By a "growth center" or "centers" is meant a complex consisting of one or more communities or places which, taken together, provide or are likely to provide, a range of cultural, social, employment, trade and service functions for itself and its associated rural hinterland. Though a center may not be fully developed to provide all these functions, it should provide, or potentially provide, some elements of each, and presently provide a sufficient range and magnitude of these functions to be readily identifiable as the logical location for many specialized services to people in the surrounding hinterland. A "growth area" is an extension of the growth center itself. It is the adjoining area likely to experience residential and employment growth because of proximity to a center or location between centers. The hinterlands are surrounding rural areas which rely upon the growth center and growth area for services and employment. The hinterlands contribute resources and manpower to the overall district economy.[42]

Growth Center Policy in Spain

A survey of Spain's regional growth policy reveals two types of growth concepts. The first one is called polos de desarrollo or

poles of development while the second one is termed poligonos de descongestion or centers of decongestion.

As early as 1964 seven poles were established--Zaragoza, Sevilla, Valladolid, La Coruna, Vigo, Burgos, and Huelva. The first five were designated as polos de desarrollo, while the last two were designated as polos de promocion industrial or poles of industrial promotion. In 1969 another four poles were added that include Granada, Cordoba, Oviedo, and Logrono.[43] The pole strategy has been aimed to diffuse growthmindedness among backward regions. While the poles are generally located among relatively developed regions, it is assumed that by establishing poles along major transport and development axes the development effort toward national integration is best served.

In the same year, five poligonos (Toledo, Guadalajara, Arando de Duero, Aleazar de San Juan, and Manzanares) were established for purposes of decongesting Madrid and encouraging industries to move out from the metropolis.[44] The poligonos de descongestion have been regarded as distinct from polos de desarrollo because their main aim is to attract population from areas depopulated from out-migration.

The Mizushima Industrial Complex of Japan

The New Industrial Cities Development Promotion Law of 1962 was designed to decentralize industrial activities in Japan. In order to mitigate the effects of diseconomies of agglomeration and to achieve a more balanced regional growth in Tokaido Megalopolis,

Okayama-kennan (southern Okayama Prefecture) was designated a new industrial city. Specifically with Mizushima as the growth pole or the site of an industrial complex, it is forecasted to increase employment activities and to strengthen the regional economy.

The designation of Mizushima as a growth pole meets the required growth center characteristics:

(1) efficient utilization of capital through selective concentration of capital in regions having the highest potential for development

(2) utilization of external economies through concentration of capital in existing larger cities having considerable external economies

(3) dominance of the role of manufacturing was to be emphasized as the leading sector for growth

(4) the role of the government would be important in provision of industrial infrastructure and financial inducements to attract industry to the growth centers.[45]

Mizushima, with its ideal industrial port, was selected by the Okayama planning authorities in keeping with the post war national policy in Japan of promoting heavy industries, particularly petrochemical, iron, steel, and related industries. Since a vast proportion of raw materials had to be imported, such as crude oil and iron ore, a coastal area equipped with good port facilities and considerable waterfront area had to be designated as the site for the development of an industrial complex.

The industrial complex here has been defined as:

> . . . a set of industrial activities occurring at a given location, dealing with the import, production, and marketing of a system of related commodities from a single class of raw materials. For example crude oil is a raw material for hundreds of related intermediate and final

> products. In an industrial complex, each successive stage or activity constitutes at least part of the market for the immediately preceding stage; conversely each stage looks to the preceding stage for its basic inputs. Consequently the locational interdependency of activities within a particular area seems to be inevitable for petroleum-related industries as well as steel fabricating industries.[46]

In summary, the variety of literature on growth pole theory has focused on (1) points of growth, (2) centrality of a place, (3) urban-industrial-based development, (4) decentralization of development, (5) bisection of the economy into analytically and empirically meaningful units, and (6) functional integration of the economy. These characterizations have assumed a major role in the theoretical literature in terms of legitimizing the industrialization process as the vehicle for the great transition of pre-industrial economies into a modernized industrial economy.

CHAPTER III

THEORETICAL NOTES

The contemporary regional growth center doctrine emerged as a result of a policy stance which itself derived from the influence of a positivistic social science and the growing functional integration of developing economies by western industrialized economies. Its development is a by-product of two dominant methodological paradigms in which planning is viewed as best modeled after the natural sciences, at least as seen in terms of "logical positivism" and the doctrine of unequal development.

The term positivism was first introduced in the eighteenth century by the French philosopher Auguste Comte. He used the term as a diatribe with which to attack the philosophical legacy of the French revolution and Hegel's philosophy.[47] He cautioned that the critical principle of Hegel's theorization is negative and contained the seed of a revolutionary change. He asserted that Hegel's "dialectic" negates things as they are and denies to the "given" the dignity of the real. Comte believed that under such assumption, any given form or state of affairs becomes transitory and limited subject to constant conflict and change. Being repulsed by the idea of constant struggle and conflict in the social order, Comte proposed to replace the so-called destructive

principles of Hegel's negative philosophy with the constructive principles of positive philosophy. His vision is to restore and affirm once again the "giveness" and positive aspect of social reality.

Comte's belief in the applicability of the principles of the natural sciences to social progress led him to advocate the use of the scientific method in the study of society and the potentiality of "social engineering" as an intellectual framework for a new rational social order. His theoretical construction legitimized the notion that social development is evolutionary and could be tried out on a limited basis like scientific experiments to determine which ones worked. Such postulation suggests how one could rationally change conditions for the better. Thus, science would provide the rational basis for a society that is neither static or anarchic, but rather one in which change could be peaceful and orderly.

Moreover, it must be noted that "logical positivism" does not come directly to us from Comte. It descended from the works of Alfred Ayer in England, Mortiz Schlick, and Rudolf Carnap of the "Vienna Circle" philosophers. These thinkers resurrected earlier positivism by bringing together the fundamental works of Bertrand Russell on the logical foundations of mathematics and Ernest Mach on the logical foundations of physical sciences.[48]

Essentially, logical positivism provided the social sciences two powerful epistemological groundings: an empiricism that based

knowledge on observational experience and a rationalism that based knowledge on logical consequential arguments. Logic became the benchmark on which social scientists modeled the world and observational experience the constraint to which the logical model had to be validated. The permeation of these two epistemological bases among academic circles provided the subtle legitimation of logical positivism as the paradigm for true knowledge of the world.

The Positivistic Temper in Planning

The positivistic influences in planning found articulation as early as 1915 in the so-called "City Efficient" movement that replaced the objectives of the reform movement in the United States. The reform movement was basically anti-political and anti-urban in its theoretical stance. The reformers were preoccupied with how to get politics out of government by seeking to reduce the influence of political parties on local government. This period was primarily dominated by an almost paranoid distrust of politics and of government itself.[49] The reformers also disliked large urban growth because of its impact on the health and safety of the city. This attitude was compounded by the reformers' hostility toward immigrant groups who were confined to slums and blighted areas. The reformers' disdain for politics and urban growth attracted "city beautiful" designers and "garden city" planners to the movement and delegated the planning function in the hands of non-political commissions composed of elite figures of the community.[50]

The reform movement was an attempt to use the French Renaissance planning principles at the largest scale possible. In the words of Mel Scott, ". . . creating an American equivalent of Paris. . . ."[51] The first demonstration of the project was laid in the original plan of Washington, D. C. which had been prepared by Major Pierre Charles L'Enfant. The plan was not executed at that time because L'Enfant fell into disfavor with Thomas Jefferson, an advocate of agrarian democracy. But in 1889 the design was resurrected from the archives and in 1901 was executed by the Capitol Planning Commission, of which Daniel Burnham was a chief member.[52] The plan for the nation's capital reflected the classic order dictated by the Ecole des Beaux Arts in Paris, arbiter of the period for everything in aesthetics considered useful and beautiful.

The strong Beaux Arts had its greatest impact on the American mind when in 1893 the World Columbian Exposition opened. Dubbed as "White City" (because of its consistent snowy-white pseudoclassic architecture), it so impressed visitors with its scale and classic beauty that after the exposition many large cities planned to become a City Beautiful. As the movement gathered momentum toward solving the problems of cities, Daniel Burnham's reputation grew with it. He made plans for Chicago, San Francisco, Manila, Baguio, and several other cities. Regarded as the father of American city planning, he introduced a credo that has become a popular motto among planners:

> Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing, insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty.[53]

The emphasis on grandiose center design, however, not only became so laden with excessive architectural expenses, but also became "pet projects" of the powerful commerce clubs and cultural foundations.[54] Divorced from the life of the community, the poor became more isolated from its grandiose planning. The slum proved to be the major deficiency of the Reform Movement. It offered little to combat this serious problem--merely vague expectations that boulevards, civic centers, and parks would provide a neighborhood atmosphere which everyone would enjoy and respect.

As the "City Beautiful" design and the uncompromising attitudes of the reformers toward other government agencies came under criticism, planning theorists became aware of new strategies of how government could be made more efficient in planning. Specifically, they became aware of connections with many other fields such as scientific management and quantitative analysis. These developments gave planning theorists the impetus to redefine planning. They charged that a plan should include socio-economic, fiscal, and physical aspects as well as regulatory controls and alternative actions in managing the urban environment. In order to overcome the limited concern of planning, the plan had to be <u>comprehensive</u>.

The overbearing concern for comprehensiveness is significant because it represented a shift in planning theory--the emergence of the "City Efficient" Movement. This period in planning came about as a result of the so-called 1915 Boston Movement led by E. A. Filene and L. D. Brandeis. Filene and his associates set out to rehabilitate Boston by enlisting the services of every businessman interested in creative public endeavor. The movement proposed an "expert accounting of the financial conditions and resources of the city, present and prospective, so clearly stated, explained, and illustrated that the man in the street could understand the waste and other losses in the public finances and services."[55] Leading businessmen and public administrators, enthused by the principles of scientific management and stimulated by the Pittsburgh Survey of 1915 (a collection of factual information and statistical analysis), wanted to be "scientific," too, in their diagnosis of the urban problems.

The enthusiasm of the City Efficient movement was followed up by G. B. Ford whose interest in multifamily housing led him to regard planning along functional lines. He proposed that the best plan flows from data-gathering, data analysis, and discovering that in almost every case there is only one logical and convincing solution to the problem involved.[56]

It was becoming apparent that planning operated along scientific and technical lines. City engineers made surveys and

calculations, laid out streets, walks, curbs, and rail lines. They also provided historical maps for the study of trends, detailed traffic counts, and maps showing population distribution. These activities were done to examine whether the city streets were functioning efficiently. They were also intended to provide information in trying to coordinate various efforts in protecting land uses from incompatible activities. Faced with the idea of protecting the land from incompatible uses, the adaptation of German zoning for this purpose became desirable.[57] It was E. M. Bassett who introduced the proposal that cities be zoned. Obsessed with the defensibility and constitutionality of a plan, he justified zoning as regulation in the public interest under the police power of the state. Rejecting the view that restrictions must be regarded as a taking of property rights requiring the invocation of the power of eminent domain and just compensation, he interpreted restriction to correspond to phrases such as public welfare, public health, safety, morals, and convenience. Hence, the ornamental characteristic of the "City Beautiful" was relegated to the background and a more rational basis for planning was pursued.

Consequently, land took on a new value. Land was usually sold as "lots" but now the value was altered in terms of street frontage--a price per front foot. Land now could be measured by the square foot. Such planning temper appealed greatly among civic and business leaders and instilled in them the value that the city is a business proposition. As G. B. Ford declared, ". . . delight

in the city should always follow the lines laid down by the practical interests of the community."[58]

This era, though shortlived, closely reflected the principle of management science expressed in the postulate that "efficiency is axiom number one in the value of administration."[59] The preoccupation for efficiency led to the assumption that efficiency can only be promoted through rational analysis and rational analysis can only be promoted through comprehensive analysis. The value of efficiency, rationality, and comprehensiveness made planning more practical and functional rather than aesthetical. As a consequence, planning efforts became institutionalized both professionally and administratively. It also legitimized the notion that planning is fundamentally concerned in prescribing scientific and comprehensive action in order to secure a sense of spatial orderliness to the imperfect forces of the marketplace. Comprehensive prescription could only be approached as a rational and scientific construct as opposed to the limited and idiosyncratic arrangements of the civic reformers (see Table 3).

More recently, a desultory connection has been made by Andreas Faludi to maintain planning theory within the bounds of a positivistic mold. He aptly defines planning as a "rational process of thought and action which ultimately aims (as science does) at promoting human growth."[60] Correspondingly, this notion is also the underlying motif in comprehensive planning. By definition, comprehensive planning is presupposed to be one:

Table 3. Epistemological Elements of Comprehensive Planning

1. Goals and Objectives are Set.
2. Scientific in Methodology.
3. Good Policy is Efficiency.
4. Full Range of Variables is Assumed in Data Base.
5. Preoccupied with Middle-Range Theory Building.
6. Problem-Solving Oriented.
7. Comprehensive in Scope.
8. Long-Range in Approach.
9. Objective in Interpretation.

> Encompassing conceptually and analytically as many as possible of the essential elements of the organism which determine its course of action and influence its development and are within the primary control of the organism itself. It is planning for the totality rather than for one or several of its constituent parts, system rather than subsystem planning. It incorporates the best estimates that can be made concerning pertinent events external to the organism. It does not attempt to cover every known element and aspect of the organism, but must consider the full range of its components and identify those that are most important and can be handled analytically.

What is significant in this definition (aside from the reliance on rational analysis) is the metaphoric use of the concept of "organism." The use of the term organism is not incidental to the definition but a deliberate theoretical stance regarding the nomothetic nature of social reality. An organism is "any thing or structure composed of distinct parts and so constructed that the functioning of the parts and their relation to one another is governed by their relations to the whole."[62]

This definitional use of the term organism in comprehensive planning not only remained unquestioned as planners became aware of the complexity of governmental organizations but assumed a broader dimension in its application and use. The need for a wider application of comprehensive planning came about as a result of the growing critique of the selective impact of the comprehensive planning in the midst of the multiplicity of governmental units in metropolitan and regional areas.

In summary, the positivistic temper in planning suggests that the growth center doctrine found its early influence from the

preoccupation of regional theorists and planners with (1) new scientific strategies of planning efficiently, (2) comprehensive and functional solutions to planning problems, and (3) the metaphoric use of the organism in the study of the city.

The call for an area-wide and long-range comprehensive planning can be traced back from the efforts of the well-known advocates of the "Chicago School of Urban Ecology." The best known of the urban ecologists were R. E. Park, R. D. McKenzie, E. W. Burgess, and L. Wirth. These theorists, deeply impressed with the notion of an organically integrated society, invigorated the application of the organic metaphor to the study of the metropolis.

The Human Ecology Theory

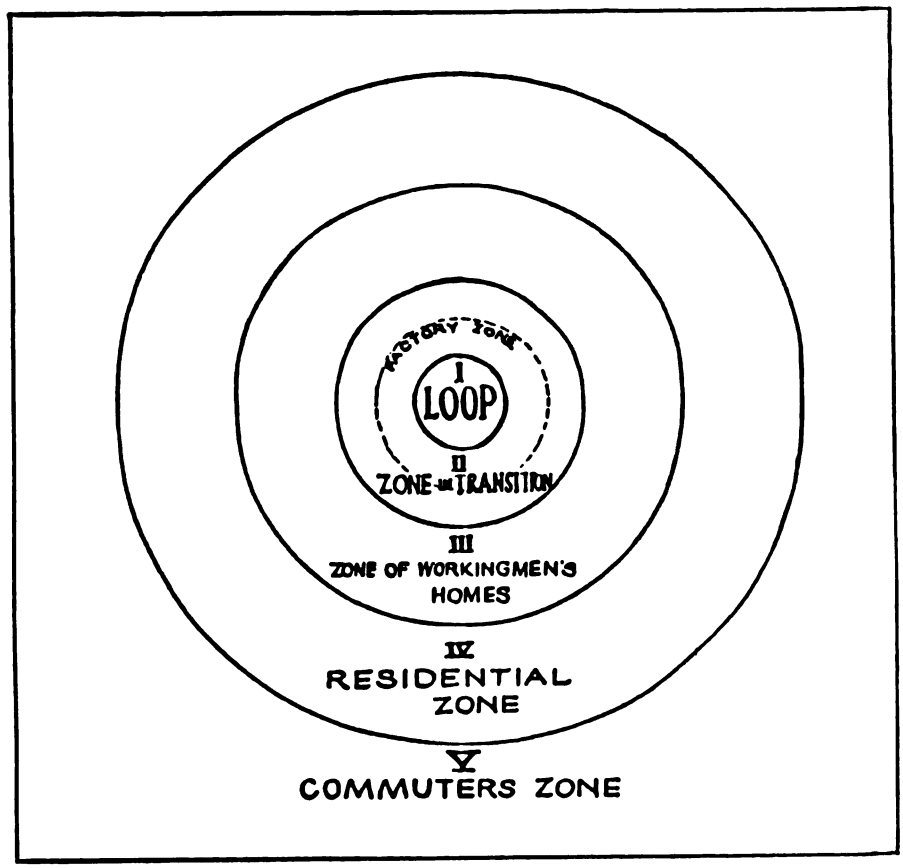
The advocates of the Chicago school of urban ecology's important publications were: The City (1925), The Urban Community (1926), and The Rise of Metropolitan Communities (1933). From these works, the authors developed the field of human ecology. With the permeation of the human ecologist's thinking in planning, the growth of the metropolis became an organic symbol of urban-industrial civilization.[63] The main idea of this school of thought in planning may be represented by this quotation from R. E. Park:

> The city plan . . . imposes an orderly arrangement . . . within the limitations prescribed, however, the inevitable processes of human nature proceed to give these regions and their buildings a character . . . it is not possible to determine in advance the extent of concentration of population which is likely to occur in any given area. The city cannot fix land values, and we leave to private enterprise, for the most part, the task of determining the city's limits and the location of its

> residential and industrial districts. . . . In this way, the city acquires an organization and distribution of population which is neither designed nor controlled.[64]

From this backdrop, one can infer the embodiment of the ecologist's conception of a community as a social order that transcends the individual species and is based on a biotic relationship. Within the limits of this system, the individuals are involved in conflicting, yet correlated interests (commonly termed "competitive cooperation"). Inter-group competition is the ecologist's control thesis and the metropolis is the expression of Invasion/Succession Process. This describes the process by which different groups and land uses replace one another in the evolution of the city. E. W. Burgess tried to diagram his concentric zone model (see Figure 1).

The figure represents an ideal construction of the tendencies of any area to expand in a polarized fashion from its center. A five-ringed city is divided into the following zones: (1) the central business district; (2) a transitional zone, characterized by blighted areas being invaded by business and light manufacturing; (3) workers' housing and factory zone in close proximity; (4) a high-class residential zone; and (5) a commuters' zone composed of residential suburbs and satellite commercial and shopping centers within accessible time-distance from the city center. The model operates through the process of disorganization/organization in which the innermost zones encroach on the outlying one in a continuous cycle of expansion and retreat.



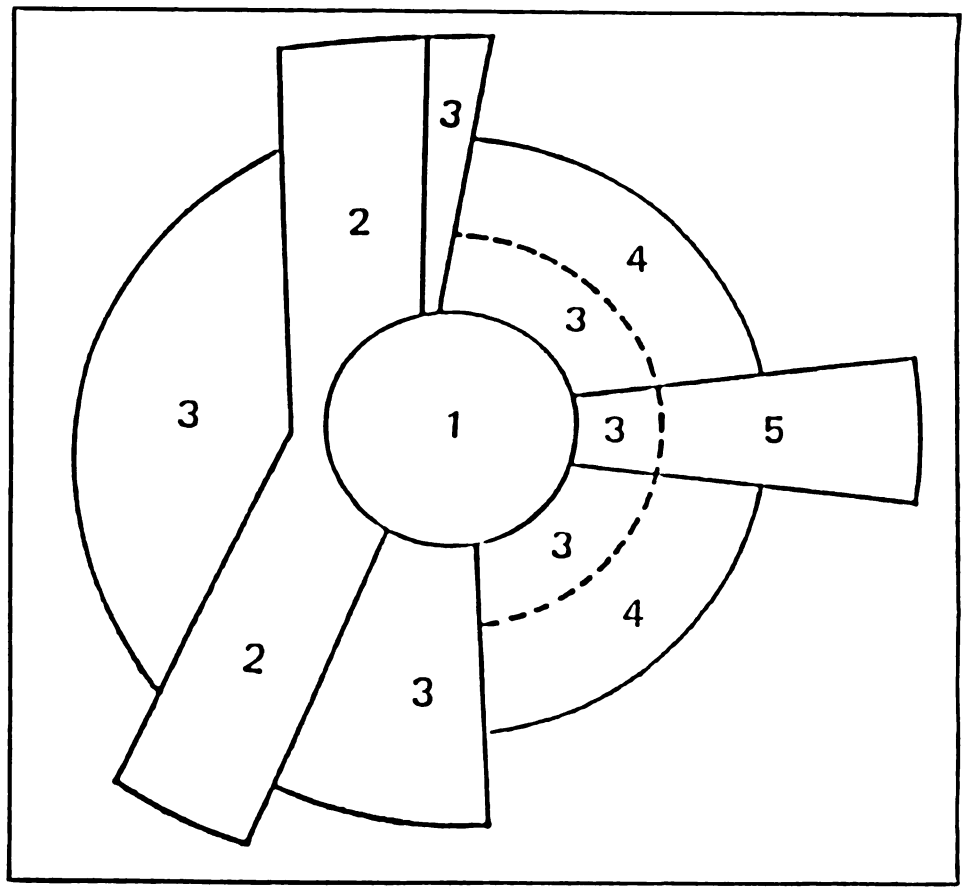
Source: Robert E. Park et al., The City, 1925.

Figure 1. Burgess' Concentric Zone Theory

Burgess' concentric zone model was criticized for its failure to account for the tendency of various land uses to expand radially along major transport routes. To make up for this deficiency, two other classic models were formulated: Hoyt's Radial Sector Theory and Harris-Ullman's Multiple Nuclei Theory. These two models supported the concentric theory by modifying its hypotheses.

Hoyt's theory deals with the areal pattern of and shifts in residential locations. The theory hypothesizes that high quality areas are the main propulsive force in determining the direction of residential area growth, and the movement of which is defined by prevailing rents and/or prices. As growth proceeds and the boundary of the high class residential zone is extended, the inner areas are abandoned giving way for the lower income group to take over (see Figure 2). This hypothetical model shows that Zone 1 is the central zone consisting of the central business district; Zone 2 is the sector which contains the wholesale and light manufacturing activities; Zone 3 is the low-class residential areas located at the opposite end of the high-class residential areas or close to the wholesale and light manufacturing zone; Zone 4 is the medium-class residential zone; and Zone 5 is the high-class residential zone.

It is also assumed that the trend of expansion proceeds radially outward influenced by existing transportation lines or toward another existing nucleus of trading centers, office buildings, banks, and shops. According to the hypothesis, while the



Source: Harold M. Mayer and Clyde F. Kohn, Readings in Urban Geography, 1959.

Figure 2. Hoyt's Radial Sector Theory

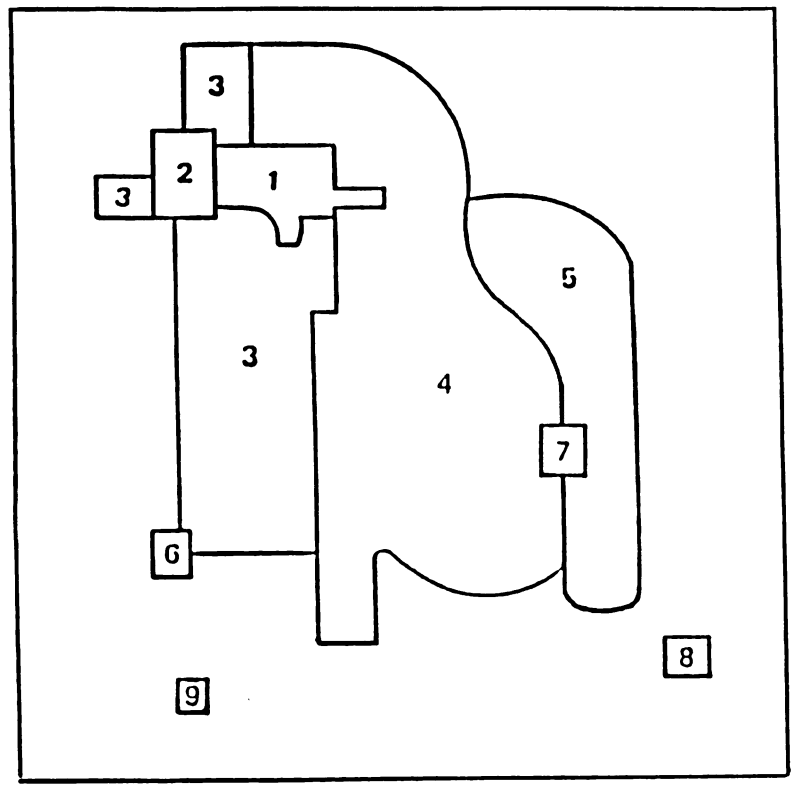
trend of expansion proceeds radially, it is in the general direction of Zone 5.

According to Harris and Ullman cities grow around several distinct nuclei rather than around one center of origin (as in Burgess' and Hoyt's theories). The origin and number of nuclei vary from city to city. The nucleus of a city may originate from a port area, a railway facility, an industrial estate, a recreational facility, etc. A hypothetical model (see Figure 3) represents the structure of the multiple nuclei theory.

Zones 1 to 5 are represented variably but akin to Hoyt's radial sector theory. Zone 6 is a heavy manufacturing area closely located to Zone 9 which is an industrial suburb. Zone 7 is an outlying business and commercial district conveniently located with Zone 8 which is a high-class residential suburb, generally composed of houses for managers and executives.

This theory is one significant reference to the concept of agglomeration and location theory. Agglomeration is indicated by the tendency of complementary economic activities such as retail shops and office buildings to be situated closely with each other, while location theory is expressed in terms of the emergence of new nuclei which may be caused by dissimilar activities such as factories versus high-class housing or prohibitive rents and land costs that attract or repel certain economic activities.

Furthermore, the two ecological principles of dominance and succession are based on the assumption that certain areas of the



Source: Harold M. Mayer and Clyde F. Kohn, Readings in Urban Geography, 1959.

Figure 3. Harris-Ullman's Multiple Nuclei Theory

city are more desirable than others--a condition which will lead to a competition among potential users--with victory going to the "dominant" user. Applied in a larger context, blighted areas, shopping centers, and financial centers owe their existence directly to the effects of dominance and competition. The struggle of industrial institutions, in the long run, shapes the outlook of the city in which residential areas and movement of people are influenced by more dominant factors. The dominant area is usually the area with the highest value. And it is this value of dominance that determines where dominant institutions such as financial centers, commercial centers, and residential clubs will be located.

It is apparent from the above-mentioned discussions that what the Chicago human ecologist had produced was a descriptive model of metropolitan growth under American capitalism.[65] John Friedmann asserts that,

> The ecologists' models of urban growth reinforced and legitimized the contentions of metropolitan planners, providing scientific 'proof' that metropolitan (physical) expansion was inevitable . . . the metropolitan vision of Park and his disciples tended to justify the functional integration of national economic space . . .[66]

Friedmann's assertion is not without truth because it was in the enthusiastic celebration of metropolitan comprehensive planning as a means of transforming America that regional planning would be forged. The reorganization of municipalities into metropolitan governments promoted the creation of region-wide agencies with the power to plan, coordinate, and implement metropolitan development. The prescription of metropolitan government gave the comprehensive

plan a new potential. Some planners even suggested that comprehensive plans become regional constitutions.[67]

In summary, the human ecology influence with the growth center doctrine centers on the legitimation of the application of the scientific-organismic interpretation of the city within the wider functional framework of comprehensive planning.

From this vantage point, various spatial and regional equilibrium/disequilibrium theories were adopted by planners, economists, and administrators that only reinforced the traditional prescriptions and assumptions of positivistic-tempered planning.

The Regional Equilibrium Theory

The positivistic-organismic tone of regional theory lies in its assumption of equilibrium/disequilibrium in the social system. In terms of regional equilibrium theory, regional development assumes a harmonious self-adjustment in the social system. For instance, the equilibrium theory maintains that regional inequality (i.e., income) arises only on account of the malfunctioning of equilibrium mechanism. Such malfunctioning is to a greater extent attributed to market imperfections and institutional bottlenecks which obstruct orderly market factors and resource movements for bringing about an efficient regional allocation of resources. Inversely, the malfunctioning of this system tends to disappear in the course of economic development when there is a greater unification of market forces and functional integration of the regional economy.

In Rostownian sense, the assumption of harmonious self-adjustment, through maximum economic growth, only makes sense if developing economies set the stage for the economic "take-off" to self-sustaining growth. Implicit in the conceptualization of "take-off" is the designation of a massive modern industrial sector that would either in spontaneous or induced ways "trickle down" growth to the surrounding areas. This regional strategy which is sometimes called the "large project" approach assumes that capital mobilized through savings would be reinvested, thereby expanding production and employment, raising incomes, attracting the influx of people into productive activities, and eventually integrating poorer regions into a stage of self-sustaining economic growth and a more balanced economy. It also assumes that regional disparities are temporal and frictional which will eventually be equilibrated by corresponding capital and labor movements.

Another advocate of the regional theory is Arthur Lewis who proposes a "big push" theory for the development of backward countries. His theory rests on the assumption that if investment is concentrated on industrial projects, it would give the developing countries the "big push" to overcome economic obstacles to development. Lewis' model consists of a "capitalistic sector" containing manufacturing, mines, etc., and a "subsistence sector" with its distinguished high employment. He hypothesizes that the supply of labor from the subsistence sector is unlimited as long as real wages in the former sector are higher. This means that the con-

continued expansion of the modern sector would lead to the absorption of the labor force from the traditional economic activities. By deliberately injecting resources to unbalance the economy, it is hoped that eventually the labor from the subsistence sector will be absorbed by the capitalistic sector for the transformation and integration of the regional economy.

In line with Lewis' thinking, D. C. North theorizes that regional growth takes place around an export-base economy. He categorizes the regional economy into two sectors: basic and residentiary (a modified version of Lewis' capitalistic and subsistence sectors). The basic sector refers to the propulsive force in the economy inviting multiplier effects that would eventually lead to the emergence of the various stages of export production. On the other hand, the residentiary sector refers to local production activities which develop where the consumer resides. The two basic assumptions of North's theory are: first, the basic sector is the primary vehicle in diffusing economic development in the region through external capital accumulation; and second, trade in a market economy proceeds on the basis of comparative advantage and equal exchange.

Quantitatively, his theory can be expressed by the economic base approach of regional analysis. Fundamental to the concept of economic base approach is the distinction between flows of cash and goods within a region and flows that cross regional boundaries. It assumes that a regional economy may be divided into two broad

classifications: a basic sector or export sector, in which income is derived from transactions that take place across the boundaries of the area under consideration; and a non-basic sector or residentiary sector, in which income is derived from transactions within the area. It further assumes that the basic or export sector is the key to a region's economic growth and that its expansion will affect the growth of the non-basic sector and in the long run the entire regional economy.

The economic base approach makes use of the "multiplier effect." It is in the general context of the multiplier effect that the distinction and impact between basic and non-basic sectors become significant. In economics, the concept of multiplier effect refers to the effect that a given increase in expenditures will ultimately have on the increase in regional income as a whole. In terms of the export base, it generally refers to the ultimate increase in a region's income that results from an increase in the basic sector. In overall terms, the economic base approach can be defined as:

$$M = \frac{Y}{X}$$

where

M is the multiplier

Y is the regional income

X is the total export income (including net factor payments and net transfers from abroad)

and $Y = D + X$

where D is the locally derived income.

In incremental terms, the multiplier would be:

$$M = \frac{\Delta Y}{\Delta X}$$

where $\Delta Y = \Delta D + \Delta X$

The overall concept can be illustrated by a simple example for an economy divided into five sectors, as shown in Table 4.

When the sales in each sector are classified according to their destination, it can be seen that the majority of agricultural and engineering sales are to external markets, while sales of services and textiles take place largely to local markets and food products are divided equally between markets. In all, some ₱160 out of the total of ₱400 worth of sales are external markets. Consequently, the overall multiplier in this case is 2.5 (i.e., 400/160).

The export base multiplier implies that basic activities are the crucial activities in the pattern of growth and decline of a region. From this assumption, a number of predictions can be developed, given one of two further assumptions--either that the relationships implicit in the multiplier will remain constant during the period under consideration or that changes in the multiplier can be determined by reference to factors exogenous to the model. Thus, one can predict the income of the whole region solely from a prediction of its basic sector, given some information about

Table 4. An Example of a Five-Sector Economy.

	Sales To (in millions of pesos)		
	Local Markets	External Markets	All Markets
Agriculture	8	42	50
Food Products	30	30	60
Engineering	15	65	80
Textiles	45	15	60
Services	142	8	150
TOTAL	240	160	400

the multiplier. Based on the illustration, if external sales rose to ₱200 and the multiplier remained constant at 2.5, the income of the entire region would rise to ₱500 (i.e., 2.5 x 200).

One can deduce from this illustration that North's two basic assumptions point essentially toward an outward-looking economy which relies on the export sector to propel the economy.

In summary, the regional equilibrium theory expanded the application of the positivistic-organismic interpretation of planning into a regional level which elicited interest on the nature and process of regional growth. These areas of interest focused on (1) the dualism of the economy, (2) the equilibriation of the economy through functional integration, and (3) the emergence of the growth pole as a strategy of unequal development and industrialization process.

Interestingly, one economist observed that recent experiences in most of the developing economies demonstrated that the Rostownian "roll up thy bed and walk" theory and related theories are suspect. He argues that the Rostownian approach is largely a discontinuous process and even after the nation reaches the "take-off" stage, there is no evidence of declining regional dualism.[68]

The problem of regional disparity has continued to elicit interest in the nature of unequal development and functional integration of regional economies. This is particularly true when developed regions continue to grow while peripheral areas increasingly lag behind vis-a-vis developed regions. Such dualism is

aggravated further by the continuing influx of people into the developed regions, intensifying the urban cost of congestion and hastening the depopulation of peripheral areas.

The Growth Pole Doctrine

One regional theory that has attracted wide attention and heated debate for the past two decades is the growth pole doctrine of development. As indicated earlier, the emergence of growth pole as a regional doctrine originated from Francois Perroux, a French economist who formulated the notion of pôle de développement and pôle de croissance. These notions basically posit that in the process of regional development, unequal development is an inevitable and necessary condition of growth itself.

Perroux's conceptualization of the growth pole is associated with his theory of economic domination. His basic theme as Mark Blaug insists is that,

> Economic activity is nowadays dominated by powerful economic units who, instead of reacting passively to impersonal market forces, adopt an offensive strategy towards buyers and rival producers to secure an advantage for themselves. Abstractly defined, 'domination' is present wherever, between two economic units, unit A exercises on unit B an irreversible or assymetric effect.[69]

Blaug also argues that Perroux's theorization of growth pole had undergone radical shifts of meaning. First, he assumes that the network of exchange is simply a network of power relations. This leads him to conclude that macro-decisions are irrational and significant economic decisions are those that do not lend

themselves to economic rationality. Second, in order to disavow the interpretation of "domination" as "exploitation" he conceded (in a Schumpeterian tone of "creative destruction") that domination becomes an integral part of competition and instrumental in economic growth and innovation. And third, the dominant economic unit becomes synonymous to the notion of "leading firms," "leading sectors," or "growth poles" (pôles de croissance).[70]

Hence, from a current perspective, growth poles would refer to a set of expanding industries located in an urban area and inducing further development of economic activity throughout its zone of influence. Of course, this is based on the assumption that economic activity tends to agglomerate around certain focal points. Perroux believes that the expansion of the growth pole is hastened by an induced technical change. This leads him to view development as essentially the birth of new and death of old industries. New industries will be advanced because its technical innovations will outpace older industries. Hence, it is through the spread effect of technical efficiency of new industries that the transformation of other sectors will be advanced.

The effective use of growth pole as a developmental policy, however, has never been without controversy. It is so popular that it has given way to different interpretations. J. R. Lasuen found out for example that:

> . . . in Spain's II Development Plan a growth pole (polo de crecimiento) is a growing center in a relatively backward region that requires an additional push; a development pole (polo de desarollo) is a stagnant center

> in a backward zone that requires a considerable push. J. P. Friedmann, dissatisfied with the identification of pole with city, coined core region, regional towns, market centers. . . . They derive basically from central place theory but sometimes are understood as special types of poles. Regional towns being sort of tertiary poles, market centers the tertiary and secondary poles of agricultural areas, according to J. Johnson who advanced the terms. Hirschman's well-known growing points respond to the same general notion. . . . All of them convey the idea . . . that economic growth and development take place in an agglomerated (sectoral and geographical) manner.[71]

Despite the varied interpretations that the theory generated, some theorists insist that many of the theory's key concepts such as propulsive firm, key industries, development poles, and dominant economic unit possess some heuristic value. Its heuristic value is especially significant not only because of the theory's relative lack of development but because it represents an important step toward the application of the doctrine of unequal development and the integration of spatial and regional economics. As H. W. Richardson observes:

> The advent of growth points (or growth poles) as an element in regional planning strategy reflects a parallel development in the theory of regional economics. Although location theory has a long ancestry and location analysts obviously treated distance factors explicitly, the early development of regional economics proper was devoid of spatial content. Regional economics began as an amalgamation of macroeconomics (theory of income determination) and international trade theory. Regions were looked upon as homogeneous units without intra-regional spatial differentiation. In effect, they could be treated for analytical purposes as points. More recently, it has been recognized that understanding of inter-regional relations can be improved by emphasis on spatial differences within regions. This recognition accounts for the interest developed in intra-regional . . . inter-regional flow analysis (polarization analysis); metropolitan economics, central place theory,

> and urban hierarchy studies; agglomeration tendencies in location theory, industrial complex analysis with location theory; the structure of regional labour markets, transport networks and nodes, and the spatial diffusion of innovations and "growth-mindedness"; and, above all, gravity potential models. The rationale behind growth-point analysis is largely based on some of these analytical concepts and techniques.[72]

The Growth Center Doctrine in the Philippines

The growth center doctrine in the Philippines is based on various presidential decrees and development plans that are intended to decentralize urban activities away from the Greater Metropolitan Manila Area (GMA). The overdevelopment of GMA has caused serious equity problems arising from the inability of the various regions to integrate with the fast growing metropolis, resulting in a dualistic regional economy. In an effort to deal with the regional disparities, former President Ferdinand E. Marcos proclaimed Agrarian Reforms decrees in 1972: Presidential Decree No. 2 proclaiming the entire country as a land reform area and Presidential Decree No. 27 ordering the transfer to the farmer of the ownership of the land he is tilling. Although no specified growth center strategy has been worked out within the context of these decrees, the agency that has been designated to implement the decrees has adopted the growth center notion in its operations.

The Department of Agrarian Reform

On December 7, 1972, former President Ferdinand E. Marcos issued Letter of Instruction No. 46 urging the implementing agency, the Department of Agrarian Reform (DAR), to determine the areas

needed for urban and industrial expansion. In order to implement Letter of Instruction No. 46, DAR entered into a contract with the University of the Philippines through its Institute of Planning to conduct a study of growth centers among land reform areas. The purpose behind this cooperative project is to integrate the land reform program with the government's industrialization and urbanization programs. To promote the idea of growth center within the context of the land reform program, the study proposed the Strategy of Selective Decentralization. This particular strategy consists of the following:

(1) Limitation of the growth of GMA in order to protect, conserve, and enhance its importance as the national capital region

(2) Sub-regionalization of development by designating sub-regional centers as growth centers to act as points of attraction and stimuli for the growth and development of their respective areas

(3) Application of land resource management techniques to promote systematic and rational urban expansion.[73]

The limitation of growth in GMA is not only intended to avoid the negative affects of hyper-urbanization but also to encourage the equitable and rational distribution of population and economic activities to other regions. This concern reflects a distributional objective of equalizing levels of welfare in different regions. To a certain extent this strategy is reinforced by the government's policy of industrial dispersal by providing incentives and guarantees to investments through the Board of Investments (BOI).[74] The DAR and BOI are some of the government agencies that

have been recommended to firm up the areas where industries should be encouraged to locate. The dispersion of industries is also correlative to the policy of building satellites which can serve as the growth poles. The concept of growth pole here is used as a possible solution to uncontrolled expansion and a means for dispersing industries.

Complementarily, the sub-regionalization of development requires the development of the primary and secondary sub-regional centers which could act as receiving centers to the increasing urban population. The primary and secondary sub-regional centers are a designated hierarchy of centers which will be given preferential allocation of financial and technical resources. For example, Tarlac, Angeles City, Olongapo City, Cabanatuan City, San Pablo City, and Bantangas City are designated primary sub-regional centers while Concepcion, San Fernando, Malolos, San Jose City, Santa Cruz, Lucena City, and Lipa City are designated secondary sub-regional centers.[75] The designation of primary and secondary sub-regional centers seems arbitrary due to a lack of clear-cut definition, except that they are assumed to benefit each other due to their geographical proximity. Specifically, in planning primary and secondary sub-regional centers, the following priorities are taken into consideration:

(1) development of an urban focus

(2) improvement of water, power supply, and sewage system

(3) improvement of streets and road networks to facilitate traffic flows

(4) provision of environmental amenities such as open spaces and parks and green belts

(5) adoption of appropriate land use policies to ensure sufficient supply of residential and industrial sites and limit land price increases

(6) balance between population and employment in order to prevent economic hardships and forestall housing shortage.[76]

Furthermore, the use of land resource management technique has been deemed necessary in order to direct and regulate the pattern of urban development. This entails the inventory of the various kinds of urban lands existing in the growth centers and the adoption of specific measures relevant to the development of that land.

The Regional Development Councils (RDCs)

The Regional Development Councils were established by the Integrated Reorganization Plan of 1972. The Plan created one RDC for each of the eleven regions in the country. But in 1975, with the clamor for a separate Muslim region, a twelfth region was carved out of the northern and southern Mindanao regions. Originally, the delineation of regions was based on administrative and management purposes with special attention paid to the existing political and ethnic boundaries. From the planning perspective, however, the RDCs are empowered to integrate the local development plans of the growth centers with the regional plan to be prepared by RDCs themselves. Particularly, RDCs are designated to carry out the following:

(1) Extend planning and other related forms of technical assistance to local governments, local planning boards, sectoral departments existing in the region, and private entities; and

(2) Coordinate all planning activities of sectoral departments of the national government existing in the region in relation to those of the local governments and local planning boards.[77]

The regional policy of the Philippines is delimited in principle by its regional programs and guidelines. Each region has its own development priorities as defined by the national development plan. To carry out these development priorities, the former military government designated significant centers for future growth. The RDCs have classified them into three types: regional centers, primary centers, and secondary centers. Regional centers also refer to regional capitals (see Table 5). These are important urban centers providing specialized services such as planning, administration, and employment that extend well beyond their boundaries. Investments made in these centers are primarily "region-serving."[78] Primary centers are cities or municipalities where preliminary analyses indicate a potential future growth that is likely to be located in the said areas. Investments in these centers will develop their competitive advantages by providing services needed to make the area attractive to private investments.[79] Secondary centers are cities or towns providing limited services to the surrounding rural areas. Investments in these centers are deemed complementary to the primary centers.

Table 5. Regional Centers

Metropolitan Manila Area (National Capital Region) Regional Center---Manila or Quezon City
Region 1-Ilocos Region Regional Center---San Fernando, La Union
Region 2-Cagayan Valley Region Regional Center---Tuguegarao, Cagayan
Region 3-Central Luzon Region Regional Center---San Fernando, Pampanga
Region 4-Southern Tagalog Region (excluding GMA) Regional Center---Metropolitan Manila Area
Region 5-Bicol Region Regional Center---Legazpi City
Region 6-Western Visayas Region Regional Center---Iloilo City
Region 7-Central Visayas Region Regional Center---Cebu City
Region 8-Eastern Visayas Region Regional Center---Tacloban City
Region 9-Western Mindanao Regional Center---Zamboanga City
Region 10-Northern Mindanao Regional Center---Cagayan De Oro City
Region 11-Southern Mindanao Regional Center---Davao City
Region 12-Central Mindanao Regional Center---Cotabato City

Source: National Census and Statistics Office, 1983.

Both primary and secondary centers are usually urban corridors assumed to eventually coalesce to form urban sub-regions.

Urban Industrial Expansion

The urban industrial expansion of the Philippines is contained in the National Economic Development Authority (NEDA) publication entitled Long-Term Philippine Development Plan Up to the Year 2000. This Plan hypothesizes that because employment opportunities in agriculture are limited, rural-urban migration will continue and an increasing proportion of the population will become urban. It is forecasted that sometime between 1975 and 2000, the urban population is expected to grow by 3 to 4 percent annually, so that by the year 2000 the urban population will be approximately 38 million or 46 percent of the estimated total population utilizing about 1.7 million hectares of urban land.[80]

Against this background, regional strategies were developed to face the needs of the country in the future. Development priorities were set in the three islands (Luzon, Visayas, and Mindanao) as to what types of urban and industrial expansion are needed in the course of modernizing the national economy. These priorities are represented by these statements:

> Luzon, the most developed area, will be basically geared to industrialization at a rapid pace. Twelve primary centers have been selected for this purpose: in Region I, Laoag-San Nicolas, San Fernando-Bauang and Dagupan; Region II, Tuguegarao; Region III, San Fernando-Angeles, Olongapo; Region IV, Batangas, Lucena, San Pablo and Puerto Princesa; and Region IV, Legazpi, Daraga and Naga-Pili.

> In Visayas, the strategy is to stimulate non-agricultural activities in order to improve the economic condition prevailing in the area, while at the same time providing a balanced agricultural development in such areas as Leyte, Samar, Panay, Negros and Bohol. Metro Cebu, the major commercial-industrial center in the Visayas, will be supported by peripheral growth centers, namely, Iloilo City, Bacolod, Tacloban and Calbayog.
>
> In Mindanao, the long-term development strategy is to fully tap its agricultural potential and at the same time hasten its industrialization to counteract the concentration of industrial activities in Luzon. The primary growth centers for Mindanao are Zamboanga City, Jolo, Cagayan de Oro, Butuan, General Santos, Marawi, Cotabato City, and Iligan. The concentration of agricultural activities shall focus chiefly on the Cotabato-Agusan River Basin. Strategies for development on the regional level give a more detailed picture than area strategy since they bring out the potentials of each region.[81]

Correspondingly, the development priorities for the three islands are reflected in the development plans of the twelve regions. Region I (Ilocos), faced with the bleak prospects of its mining industry, is banking on the accelerated development of small-scale industries with export and employment-creation potential. Region II (Cagayan Valley), in view of its small industrial base, is pursuing a policy of attracting manufacturing activities consisting mainly of wood and food processing for export and medium- and small-scale capital goods for domestic consumption. Region III (Central Luzon), owing to its proximity to GMA, is pursuing accelerated industrialization through consumer-goods industries, cottage industries, agro-based industries, metal-based industries, and petrochemical products. Region IV (GMA) is maintaining its scheme of discouraging the establishment of industries within the fifty mile radius of its territory. Improvement and

provision of social services will be its development priority. Region IV-A (Southern Tagalog) is developing "growth corridor sub-region" aimed at decongesting GMA. Another target is to develop commerce, tourism, light and medium industries, shipping point for exports, and rural industries. Region V (Bicol) is shifting from an agricultural base to agro-industrial setup. This will focus on the development of labor intensive, small- and medium-scale, light, agro-processing and footloose industries. Region VI (Western Visayas) is opting for the expansion of its agricultural production and agro-related products. Sucro and resource-based industries are envisioned to dominate because of its sugar and coconut products. Small-scale and cottage industries will also be pursued to absorb labor. Region VII (Central Visayas) is exploiting its mineral deposits and shipping capabilities. Industries related to consumer and intermediate goods, engineering, and trading will be promoted. In Region VIII (Eastern Visayas), diversifying agricultural products is given emphasis to raise productivity. Promotion of intermediate and capital goods based on mineral, aquatic, and forest resources will also be pursued. It is anticipated that coconut oil milk and two mini-industrial estates will be established. In Region IX (Western Mindanao) industrial activities based on agro-products, and marine and mineral resources will be expanded. Region X (Northern Mindanao) is developing a linear settlement and industrial area along the northern coast of Mindanao. Region XI (Southern Mindanao) is foreseeing an increase in

manufacturing output. Resource-based industries are oriented toward markets in other regions or countries. Region XII (Central Mindanao), commanding a major portion of Maria Cristina hydro-electric plant, will enhance the region's development of small- and medium-scale industries.

In summary, there are two symbiotic structural policies that can be gleaned from the aforementioned urban industrial development priorities, namely, export promotion and agro-industrial development. The dominance of these two structural policies is, in some sense, expected. Throughout the Philippines' postwar years, two major problems have always persisted--balance of payment deficits and growing unemployment.

Export diversification policy in the Philippines has been employed as a precautionary measure against being too dependent on few large markets and to promote export products in other regions of the world. In view of this policy, non-traditional manufactured good such as garments, furniture, electronics, gifts and housewares, footwear and leathergoods, fresh and processed foods, and construction services are encouraged in order to augment traditional export goods.[82] It is assumed that export promotion activities will strengthen the balance of payment position, raise the level of industrial growth, and pay investments and raw material needs provided only by imports.

Efforts toward the acceleration of the country's agro-industrial base have been reflected in the various agricultural

development plans in the Philippines (see Table 6). Although the agricultural sector has been developed to meet domestic requirements or attain self-sufficiency, it has also been considered as a major source for raw materials and foreign exchange required by the industrial sector. The latter is achieved by providing surplus or raw materials for industrial processing and expansion of production of agricultural exports.

Such a view of the agricultural sector has not only heightened the notion of agro-industrial development as a prerequisite to modernization, but also reinforced export promotion--a view that has entrenched the outward-looking economy in our development and growth policies.

The Tripolar Urban Strategy

From the vantage point of broad regional objectives contained in the various development plans, a growth center scheme was formulated to initiate, coordinate, and implement the national-regional development objectives and priorities. Adopted in both the Long-Term Philippine Development Plan and Physical Perspective Plan for the Philippines,[83] the growth center scheme was further expanded into a higher hierarchy popularly called the Tripolar Urban Strategy.[84] This strategy entails the designation of three dominant metropolitan centers--the GMA and two counterpoles, the Cebu-Mandaue-Lapu Area and the Davao-Tagum Area (see map in the Appendix). The rationale behind this strategy is the simultaneous development of two metropolitan areas to act as counterpoles to

Table 6. The Various Development Plans And Their Emphasis

Plan and Coverage	Emphasis	Allocation	
		Industry	Agriculture
1. Beyster Plan (1947-51)	Industry	47.8	22.8
2. Hibben Plan (1948-51)	Agro-Industrial	14.5	17.5
3. Cuaderno Plan (1949-53)	Industry	27.5	32.6
4. Yulo Plan (1950-54)	Agriculture	23.9	56.7
5. Rodriguez Plan (1955-59)	Industry	35.7	20.2
6. NEC Economic and Social Development Program (1957-61)	Industry	23.3	16.5
7. Budget Plan (1957-62)	Agro-Industrial	N.A.	N.A.
8. NEC Three-Year Program (1960-62)	Agro-Industrial	27.4	11.3
9. NEC Five-Year Plan (1963-67)	Agro-Industrial	35.8	6.7
10. PES Four-Year Plan (1967-70)	Agro-Industrial	N.A.	N.A.
11. NEC Five-Year Plan (1970-74)	Agro-Industrial	19.5	15.3
12. NEC Four-Year Plan (1971-74)	Agro-Industrial	3.2	8.4
13. NEC Four-Year Plan (1972-77)	Agro-Industrial	2.1	7.8
14. NEDA Four-Year Plan (1974-77)	Agro-Industrial	3.9	11.6
15. NEDA Five-Year Plan	Agro-Industrial	3.7	7.8

Source: Philippine Development, Vol. XII, No. 5, 1985.

GMA. These counterpoles are assumed to functionally link major urban centers with their peripheries and facilitate the dispersion of industries outside GMA. It is also assumed that if the counterpoles are developed as relatively self-sufficient and attractive, it would attract industrial and commercial establishments that could generate substantial employment opportunities. This assumption would eventually lead to a more balanced socio-economic development in the country.

In summary, the growth center doctrine of the Philippines has concentrated on (1) decentralization of development away from Metro Manila, (2) designation of "points of growth," and (3) functional integration of the regional economies via an export-expansion and agro-industrial development. These structural goals of growth center doctrine point toward the notion that the country's quest for a balanced economic development requires a vigorous industrialization effort.

CHAPTER IV

HYPOTHESES AND METHODOLOGY

It has been argued that the dynamics of growth center strategy carries in itself the potentiality of functionally integrating the regional economies. It is based on the assumption that centers of agglomeration make concentration of economic activities more efficient and attractive for investments. It is argued that industrial and commercial activities cluster around a certain focal point because of its locational advantage. For example, commercial and service oriented activities thrive on urban areas because they require a high population threshold for viability. Consequently, it is from this argument that preferential or disproportionate allocation of public funds at selected areas is oftentimes rationalized and justified.

It is still questionable, however, if the functional integration or convergence of national and regional economies is best approached through the growth center strategy. Some theorists[85] have suggested that the so-called "spread" or "trickle down" effects are not only suspect but also widen regional inequalities.

In the Philippines, the prospect of reducing regional inequalities has been pursued since the early part of the 1970s. Growth center incentives such as industrial and commercial

activities dispersals were adopted to functionally link different regions in an export-promotion and urban and agro-industrial expansion. After over a decade of growth center experience, notable national and regional trends are emerging transforming a basically agricultural economy.

Hypotheses

The main hypothesis of this study states the growing tertiarization and externalization of national as well as regional economies after over a decade of growth center experience. By tertiarization, the present writer refers mainly to the expansive share of the service sector (tertiary) to national output (one of the three sectors making up GDP). The rest of the sectors are agriculture (primary) and industry (secondary). There are four broad categories comprising the service sector: (1) wholesale and retail trade; (2) transportation, storage, and communication; (3) financing, insurance, real estate, and business services; and (4) public and private services. The tertiarization of the national economy and regional economies is based on two sub-hypotheses, namely, the growing sectoral share of the service sector to the GDP and the increasing labor drift toward the service sector.

Externalization, on the other hand, refers mainly to the increasing orientation of national as well as regional economies toward external-sourced commodities such as capital and intermediate goods. The externalization of the national and regional

economies is based on two sub-hypotheses, namely, the increasing combined national trade deficits for capital and intermediate goods and total regional trade disparity between inward trade and outward trade by port districts.

Specifically, the sub-hypotheses may be summarized as follows:

Sub-hypothesis 1: Under the growth center doctrine, the sectoral share of the service sector to the GDP has grown relative to agriculture and industry.

Sub-hypothesis 2: Under the growth center doctrine, the employment share of the service sector has grown relative to agriculture and industry.

Sub-hypothesis 3: Under the growth center doctrine, the combined national trade deficit for capital and intermediate goods has increased.

Sub-hypothesis 4: Under the growth center doctrine, the total regional share of inward trade has grown relative to total regional share of outward trade by port districts.

Methodology

Collection of Data

The data for the study were collected by the use of secondary sources. The analysis of the secondary sources was taken from documents and data sets produced by the National Economic Development Authority (NEDA), National Census and Statistics Office (NCSO), Philippine Ports Authority (PPA), and Central Bank (CB).

Several steps were taken in gathering the data. First, the present writer contacted some key informants[86] involved in the regional planning scene to obtain their assistance in accessing government documents and data sets. This step was done in order to

circumvent the bureaucratic difficulty of accessing government materials and information. In this first step, the key informants were also briefed regarding the purpose of the study.

Secondly, with assistance from key informants the present writer visited and surveyed departments, sub-departments, and libraries of government agencies involved in regional development. The Office of National Accounts of the National Economic Development Authority was very valuable in terms of data sets on GDP, national income accounts, and regional accounts. The library of the NCSO was another major source of materials and information related to employment, expenditure, and GNP. Data sets produced by the Central Bank of the Philippines were also found in the NCSO library. The Office of Regional Trade Statistics of the Philippines Ports Authority was also surveyed out of the endorsement of a key informant from the NCSO. This survey proved to be fruitful because data sets on shipping and trade statistics, cargo statistics by commodity classifications, and port districts were produced and published by this office.

Finally, having secured the permission and access to government documents and data sets, the present writer started collecting the data. The collection of the data was begun on September 20, 1985 and completed on December 20, 1985.

Method of Data Analysis

In order to test the hypotheses posed in this study, the following methods of data analysis were used.

Sub-hypothesis 1: This hypothesis states the increasing output dominance of the service sector based on sectoral analysis. The sectoral analysis was based on the present writer's calculation of regional accounts of the Philippines from 1973 to 1984, at constant prices published by NEDA in the Philippine Statistical Yearbook. The calculation relied primarily on the use of percentage and average to highlight the economic growth by sector and sectoral shares to GDP. The calculation was also categorized by quadrenniums to provide comparative reference to sectoral analysis.

Sub-hypothesis 2: This hypothesis states the increasing drift of labor toward the service sector based on regional employment analysis. This method of data analysis was based on the present writer's calculation of employment statistics published by the National Census and Statistics office in Philippine Yearbook. The calculation included average sectoral share and average sectoral growth of regions by major economic production and years. The calculation only included data sets for 1973, 1974, 1975, 1980, 1981, and 1983. The unavailability of 1976 to 1979 and 1984 data sets is due to the temporary suspension of NCSO yearbooks on these dates. Nevertheless, in spite of the limitation, the analysis can still fairly represent a comparative employment growth trend and structure covering a span of over a decade.

Sub-hypothesis 3: This hypothesis states the increasing combined national trade deficit for capital and intermediate goods based on the foreign trade profile of the Philippines. The choice

of capital and intermediate goods in this hypothesis relative to consumer goods and mineral fuels was two-fold: (1) capital and intermediate goods are essentially goods for the use of industries, and (2) to highlight the areas of national trade deficit. Specifically, the hypothesis was analyzed through the use of import composition statistics contained in the foreign trade profile of the Central Bank of the Philippines. The present writer calculated for the percentage share of each import composition in order to highlight the national trade deficits of each import composition.

Sub-hypothesis 4: This hypothesis states the regional trade disparities by port districts using the regional trade analysis. The original trade analysis was based on the present writer's calculation of the Philippine regional trade statistics produced by PPA. The calculation included regional balance of trade, percentage share of inward trade to total trade, and percentage share of import to total inward trade. The analysis basically highlighted the percentage share of inward trade over outward trade by port districts. It must be noted, however, that the regional trade analysis of port districts was limited to a period of five years (1979-1983). The present writer decided to limit the data for these years because they represent the adoption of a consistent format of reporting trade statistics by PPA. The PPA ceased publishing their yearbook on regional trade statistics in 1984.

Limitation of Data Analysis

As has been mentioned before, the present study does not attempt to establish a cause and effect relationship between the Philippine growth center doctrine and the growing tertiarization and externalization of the national as well as regional economies. The present writer is aware of the fact that the present Philippine economic condition can also be attributed to a host of factors such as political instability, militarization, domestic mismanagement, graft and corruption, international recession, or foreign intervention.

Hence, this study only presents the status of the Philippine economy with regard to national and regional growth profile and the growing trend of tertiarization and externalization of the national and regional economies under the growth center doctrine. The choice of the two major areas of measurement, however, is closely related to the claimed promise of the growth center approach to functionally integrate the national and regional economies via export-promotion and agro-industrial expansion. These two proposed symbiotic growth center structural policies of export-promotion and agro-industrial expansion have been assumed to strengthen the country's balance of payment position and raise its level of industrial growth. This view of development has not only heightened the notion of agro-industrial development as a major source for raw materials and foreign exchange required by the industrial sector,

but also reinforced an outward-looking economy as a prerequisite for growth and development.

Validity/Reliability of Data Source

Most of the secondary sources were taken from data sets produced by the National Economic Development Authority (NEDA), National Census and Statistics Office (NCSO), Philippine Ports Authority (PPA), and Central Bank (CB). These government agencies more or less follow a standardized method of reporting and producing statistical information. For example, the preparation of national accounts statistics in the Philippines is undertaken by NEDA. NEDA uses the Philippine System of National Accounts' framework, which is generally in accordance with the classifications and definitions recommended in the United Nations System of National Accounts (SNA). Basically, the SNA provides a comprehensive and detailed framework for the systematic and integrated recording of transaction flows in an economy. It also provides articulated and coherent data ranging in degree of aggregation from consolidated accounts of the nation to detailed input-output and flow-of-funds tables which include production and goods and services and outlay and capital finance accounts for institutional sectors and subsectors.

Another example of data sources that follow a standard form is the Philippine trade statistics. Its basic information such as external trade performance, commodity flow, import, export, and external trade indicators is collected and compiled in accordance

with the revised Standard International Trade Classification (SITC).[87]

Efforts on the part of the national government to follow an international standard of reporting statistical information enhance the validity/reliability of these data. At the outset, it can be said that the data have face validity. With the use of a standardized form, face validity may be simply assessed by assuming that the instrument in gathering the data measures the concept adequately. As to its reliability, again the measure is enhanced by the use of a standardized form. The reliability of a measure is simply its consistency.

Finally, it must be noted that the data are also used by the United Nations in their many statistical documents such as National Accounts Statistics and International Trade Statistics.

CHAPTER V

FINDINGS

As indicated earlier, the Philippines has subscribed to the theory of growth center as a national and regional development policy. This development policy has been pursued by the government since the early seventies to functionally integrate peripheral regions through a growth-induced industry-led center. To encourage the functional integration of regional economies, various growth center strategies such as tax incentives, dispersal of industrial and commercial activities, financial and technical assistance, industrial zoning, setting-up of agro-industrial estate, locational prohibition for certain industries, and export expansion policies were formulated.

This is in view of the fact that for a long time Metro Manila has been overdeveloped while the rest of the regions have lagged behind, resulting in a dualistic economic condition. As it is commonly observed, the Philippines is Manila and beyond Manila. As industrial and commercial activities and population converge in this primate city, the socio-economic cost of its congestion has reached a critical limit necessitating the development of new growth centers to act as counterpoles and to enhance the participation of other regions in the economic growth of the country.

As the growth center strategy received increased emphasis, the economic performance of thirteen regions (after more than a decade of growth center experience) revealed growing trends of development that require some appraisal. This appraisal, which is reflected in the purpose of the study, proceeds by presenting the status of national and regional economies after over a decade of growth center doctrine and by specifically examining data on the tertiarization and externalization of national and regional economies. The two purposes structure the manner in which this study is directed. This chapter is presented in three parts: (1) the growth profile of Philippine regions; (2) the regional inequality in the Philippines; and (3) the growing regional trends (consists of the discussion of the hypotheses).

The Growth Profile of Philippine Regions

The growth experience of the Philippines must be seen in the context of transforming a basically agricultural economy through an industrial process which is deemed inevitable in modernizing the economy or managing efficiently and equitably the country's limited resources. Essentially, in this case the growth center strategy has been emphasized as the medium by which such transformation is to be achieved. It is becoming evident, however, that the assumed functional integration of regional economies through a growth-induced industry-led center has its shortcomings.

Economic growth in the Philippines during the past several years posted a declining growth. From 1973 to 1984, the economy of

the country has been tapering off, registering an average growth rate of 6.98 percent in 1973-1976 period, slowing down to 5.80 percent in the next quadrennium, and plunging to below 1.00 percent in 1981-1984 period (Table 7). In fact, as shown in Table 8, 1984 ended with a negative 4.57 percent in the gross domestic product (GDP). All of the regions except for Central Mindanao (0.47 percent) had negative gross regional domestic product (GRDP).

A breakdown of the country's GDP by regions from 1973-1984 reveals that eight of the thirteen regions--Western Mindanao, Central Mindanao, Metro Manila, Southern Tagalog, Central Luzon, Central Visayas, Northern Mindanao, and Southern Mindanao grew faster than the national average (Table 7). The prominent growth regions per major island group are Metro Manila for Luzon, Central Visayas for the Visayas, and Western Mindanao for Mindanao (Table 7). Metro Manila experienced the highest expansion rate of 5.15 percent in Luzon. The economic performance of Metro Manila is, in a general sense, expected precipitated by its historical and locational advantage. It is both the center of the national government and industrial and commercial activities of the country. Central Visayas led the Visayas Island registering a growth rate of 4.62 percent. A factor enhancing Central Visayas' growth is the designation of Metro Cebu as its pacesetter in regional development, making it the recipient of various industrial expansion projects, infrastructure, and financial and technical

Table 7. Philippine Economic Growth by Region (%).*

	1973-1976	1977-1980	1981-1984	1973-1984
Philippines	6.98	5.80	0.82	4.53
Luzon				
Metro Manila	8.11	6.46	0.90	5.15
Ilocos	3.48	5.83	2.13	3.82
Cagayan Valley	3.96	6.20	-2.44	2.57
Central Luzon	7.11	5.23	1.80	4.71
Southern Tagalog	7.84	5.79	0.92	4.85
Bicol	6.29	5.22	-1.45	3.36
Visayas				
Western Visayas	5.23	2.93	1.07	3.08
Central Visayas	7.45	5.92	0.48	4.62
Eastern Visayas	4.64	3.52	-1.01	2.38
Mindanao				
Western Mindanao	9.49	10.95	0.06	6.83
Northern Mindanao	6.75	7.22	-0.10	4.62
Southern Mindanao	8.52	4.44	0.73	4.56
Central Mindano	3.45	7.60	5.00	5.35

Source of basic data: National Economic Development Authority, Philippines

*GDP in millions of pesos at constant prices.

Table 8. Gross Domestic Product (%).*

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Philippines	8.48	5.00	6.57	7.86	6.15	5.50	6.26	5.31	3.86	2.90	1.07	-4.57
Luzon												
Metro Manila	13.91	6.16	6.65	5.70	7.39	5.29	6.79	6.36	4.44	3.20	2.73	-6.78
Ilocos	8.95	1.84	2.11	1.03	7.16	2.97	7.81	5.40	6.18	2.99	0.88	-1.53
Cagayan Valley	14.24	-3.06	-10.56	15.21	6.07	6.73	11.02	0.97	3.25	-1.56	-2.71	-8.73
Central Luzon	7.38	7.08	4.15	9.81	3.66	5.58	5.93	5.75	9.50	3.28	-0.74	-4.83
Southern Tagalog	4.00	4.70	11.98	10.69	6.52	7.84	3.19	5.62	2.21	2.13	2.56	-3.22
Bicol	4.12	5.04	5.51	10.49	6.84	-0.22	4.62	9.65	2.39	-6.57	1.48	-3.08
Visayas												
Western Visayas	5.89	6.31	3.42	5.31	1.34	2.44	5.65	2.29	4.37	5.53	-1.47	-4.14
Central Visayas	7.75	6.78	6.13	9.14	7.37	3.12	4.95	8.24	3.93	0.19	1.36	-3.54
Eastern Visayas	9.60	-0.76	9.48	0.25	-1.34	5.54	4.01	5.87	3.59	1.17	-3.84	-4.96
Mindanao												
Western Mindanao	6.75	2.61	12.13	16.49	9.92	14.34	10.76	8.77	4.69	0.95	1.03	-5.45
Northern Mindanao	5.38	7.02	2.44	12.16	9.17	6.81	10.71	2.20	-0.77	7.44	-4.55	-2.53
Southern Mindanao	8.51	2.68	12.11	10.76	6.06	3.79	6.38	1.52	1.27	-0.33	3.60	-1.64
Central Mindanao	-5.77	3.41	12.37	3.78	7.55	13.50	6.52	2.83	0.13	19.64	-0.25	0.47

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

programs. Unfortunately, Metro Davao, the identified growth center for Mindanao, has not pushed Southern Mindanao's growth thrust. Southern Mindanao's share of GDP registered a 4.56 percent growth rate. It was outpaced by the rest of the Mindanao regions, especially Western Mindanao. Western Mindanao attained a significant growth rate higher than 6 percent (Table 7). The considerable improvement in Western Mindanao's growth rate may be explained by its copra products. It is the most agriculture-intensive (especially in coconut) among the thirteen regions.

Moreover, industry--the frequently-noted growth center's engine of economic growth--had the lowest decline compared to agriculture and service. Industry, which has been considered as the key in dealing with the unemployment problem and prospects for modernization, has consistently declined. This sector is composed of the following industries: manufacturing, mining and quarrying, electricity, gas and water, and construction. It has been the popular target of most of the urban-industrial expansion policy measures of the government. Available data reveal that this sector's growth rate declined as follows: 9.28 percent in 1973-1976, 5.79 percent in 1977-1980, and -0.82 percent in 1981-1984 (Table 9). The negative result in the last quadrennium is understandable because in 1984 it recorded a -10.56 percent growth rate. In fact, all of the regions had a negative growth rate in 1984 (see Appendix).

Table 9. Philippine Economic Growth by Sector (%).*

	1973-1976**			1977-1980**			1981-1984**			Average; 1973-1984		
	Aggie	Industry	Service	Aggie	Industry	Service	Aggie	Industry	Service	Aggie	Industry	Service
Philippines	5.26	9.28	6.27	4.65	6.79	5.70	1.38	-0.82	1.99	3.76	5.09	4.65
Luzon												
Metro Manila	0.00	8.86	7.38	0.00	6.34	6.32	0.00	-0.21	2.08	0.00	4.99	5.36
Ilocos	1.99	4.15	4.68	6.90	7.36	4.23	4.99	-2.78	2.51	4.62	2.91	3.81
Cagayan Valley	-3.37	31.81	6.20	5.87	9.36	4.43	0.46	-13.21	1.62	0.98	9.32	4.08
Central Luzon	6.85	9.07	5.62	6.08	5.25	4.62	3.23	1.17	1.45	5.39	5.16	3.90
Southern Tagalog	9.01	9.84	4.63	4.17	7.40	5.32	1.14	-0.85	3.05	4.78	5.47	4.33
Bicol	3.48	23.68	6.59	5.18	6.07	5.12	-2.53	-6.53	2.69	2.04	7.74	4.80
Visayas												
Western Visayas	5.11	7.94	3.47	0.29	5.31	4.56	2.37	-0.55	1.12	2.59	4.23	3.05
Central Visayas	7.57	9.69	5.89	5.40	7.63	5.23	0.24	-0.54	1.44	4.40	5.59	4.19
Eastern Visayas	4.84	2.84	5.61	3.34	3.54	4.02	-1.37	-6.75	2.22	2.27	-0.12	3.95
Mindanao												
Western Mindanao	11.94	6.99	7.60	14.50	10.19	5.68	-0.11	-1.97	1.03	8.77	5.07	4.77
Northern Mindanao	2.98	12.26	10.31	2.42	14.98	8.72	1.23	-4.02	1.58	2.21	7.74	6.87
Southern Mindanao	9.60	13.24	5.55	2.98	7.95	4.83	0.12	0.02	2.03	4.23	7.07	4.14
Central Mindanao	-1.11	9.46	8.07	9.23	7.83	4.75	8.87	0.55	2.09	5.67	5.95	4.97

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

**Annual average during the designated time period.

The declining share of the industrial sector was also accompanied by the declining share of agriculture and service sectors. A look at the economic growth by sector reveals a similar pattern, although the industry sector had the lowest decline. Agriculture's growth rate declined from 5.26 percent in 1973-1976 to 4.65 percent in 1977-1980 and 1.38 percent in 1981-1984. On the other hand, the service sector's growth rate declined from 6.27 percent in 1973-1976 to 5.70 in 1977-1980 and 1.99 percent in 1981-1984 (Table 9). Interestingly, only the agriculture sector posted a positive growth rate of 0.81 percent in 1984 (see Appendix). The service sector, like the industry sector, also had a negative growth rate of 2.48 percent in 1984. The regions' share of the service sector showed negative growth rates, except for Southern Tagalog (see Appendix). The agriculture sector, however, had a negative growth rate in the previous year. In 1983, it registered a -2.10 percent growth rate (see Appendix). The 1983 negative growth rate may be attributed to the prolonged drought that struck the country in 1982 and 1983.

Generally, the steeper decline in the GDP in the last quadrennium can also be explained by the August 1983 incident that crippled the country's production system. The assassination of Benigno Aquino escalated an economic debacle never experienced by the nation since the last world war. The crisis not only aggravated the recovery of many farms from the drought of the previous year but also choked industry's supply line due to foreign

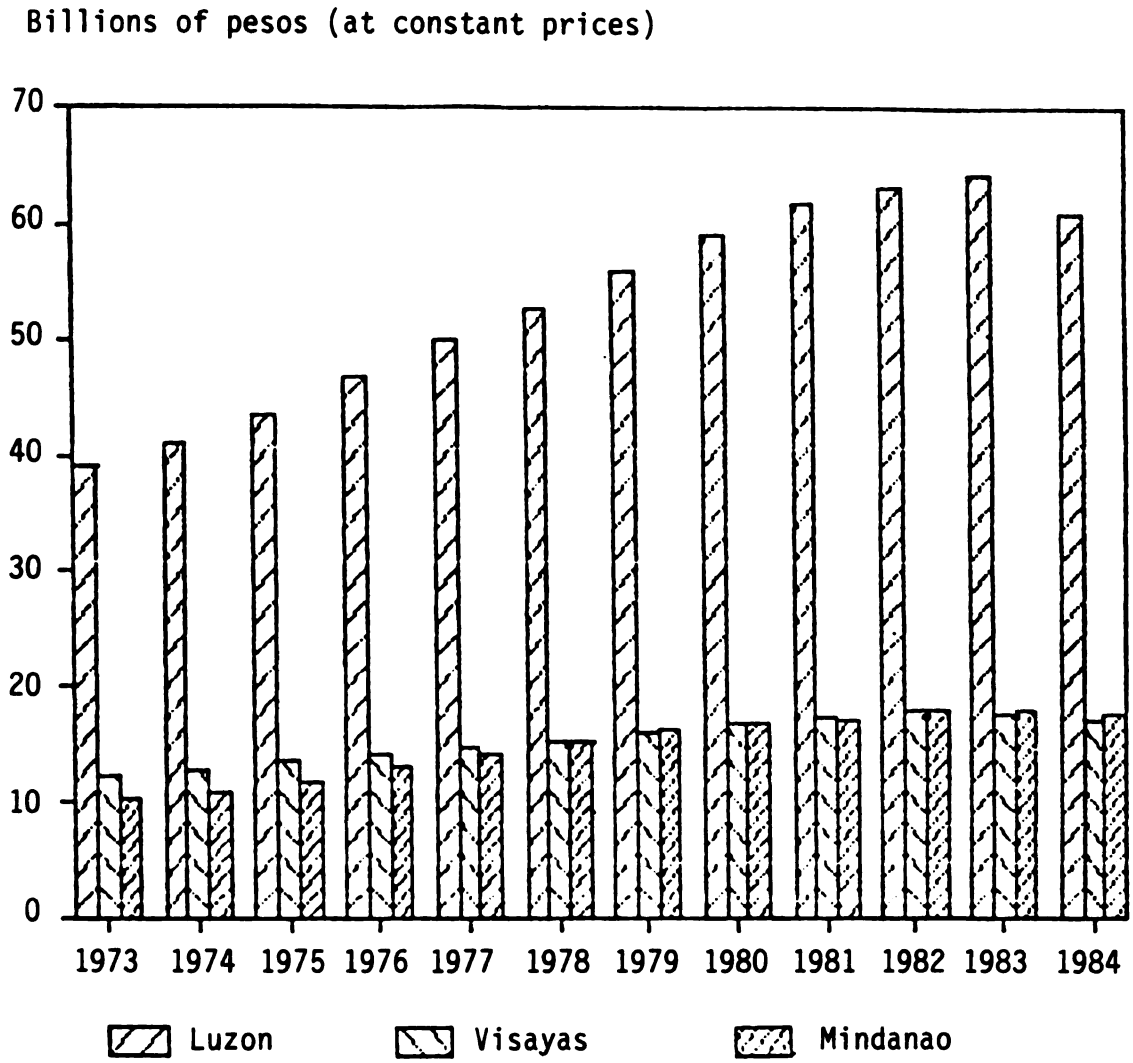
exchange shortage and "bank-run." Nevertheless, it must be noted that the growth profile of Philippine regions even before the August 1983 incident still showed a declining performance (Table 8).

The Regional Inequality in the Philippines

After over a decade of growth center policy and strategy in the Philippines, regional shares of national output have remained inequitable. A glance at the gross domestic product by major island group from 1973-1984 showed the structural shares have remained generally invariant all throughout. Significant shifts in shares never took place as evidence by the consistent dominance of Luzon Island over Visayas and Mindanao Islands (Figure 4).

From a regional perspective the sharing picture is severely unbalanced too, with Metro Manila taking the lion's share. A breakdown of regional shares to sectoral output from 1973-1984 revealed that Metro Manila alone accounted for an average share of approximately 31.31 percent or almost one-third of the total gross domestic product, the highest among the thirteen regions. The next top contributor is Southern Tagalog, accounting for an average share of 14.01 percent in GDP. Also, Central Luzon ranks as one of the highest contributors, averaging 8.56 percent share of GDP (Table 10). Interestingly, both regions are next door neighbors to urban-industrial Metro Manila.

Providing contrast to this economic landscape in Luzon are the adjacent areas of Cagayan Valley, Bicol, and Ilocos. These regions



Source of basic data: National Economic Development Authority, Philippines.

Figure 4. Gross Domestic Product by Major Island Group

Table 10. Regional Shares to Sectoral Output (%).*

	1973-1976**				1977-1980**			
	Aggie	Industry	Service	GDP	Aggie	Industry	Service	GDP
Philippines	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Luzon								
Metro Manila	0.00	46.36	38.11	30.78	0.00	45.56	39.43	31.55
Ilocos	4.78	2.55	4.00	3.70	5.18	2.58	3.78	3.71
Cagayan Valley	4.65	1.85	2.34	2.79	4.86	2.01	2.22	2.82
Central Luzon	8.71	8.96	8.15	8.58	9.18	8.45	7.82	8.40
Southern Tagalog	15.89	15.54	11.28	14.00	15.57	15.91	11.10	13.98
Bicol	7.07	1.43	2.93	3.52	7.15	1.40	2.87	3.43
Visayas								
Western Visayas	15.19	6.62	7.39	9.21	12.80	6.25	7.08	8.24
Central Visayas	6.29	6.76	8.33	7.23	6.31	6.96	8.13	7.26
Eastern Visayas	5.67	1.08	2.16	2.72	5.37	0.95	2.02	2.49
Mindanao								
Western Mindanao	5.47	0.80	2.71	2.78	7.82	0.89	2.71	3.36
Northern Mindanao	7.78	2.63	3.98	4.53	7.13	3.43	4.44	4.77
Southern Mindanao	13.32	3.29	6.33	7.14	12.47	3.43	6.13	5.78
Central Mindanao	5.20	2.12	2.29	3.01	6.14	2.20	2.21	3.21

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

**Annual average during the designated time period.

Table 10 (cont'd.).

	1981-1984**				Average; 1973-1984			
	Aggie	Industry	Service	GDP	Aggie	Industry	Service	GDP
Philippines	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Luzon								
Metro Manila	0.00	46.71	39.54	31.59	0.00	46.21	39.03	31.31
Ilocos	5.93	2.38	3.86	3.90	5.30	2.50	3.88	3.77
Cagayan Valley	4.68	1.08	2.19	2.47	4.73	1.65	2.25	2.69
Central Luzon	9.81	9.09	7.65	8.80	9.23	8.83	7.37	8.56
Southern Tagalog	15.43	15.93	15.58	14.05	15.67	15.79	11.32	14.01
Bicol	6.06	1.09	2.95	3.13	6.76	1.30	2.92	3.36
Visayas								
Western Visayas	13.24	6.25	6.83	8.32	13.74	6.37	7.10	8.59
Central Visayas	6.03	7.06	8.01	7.17	6.21	6.93	8.17	7.22
Eastern Visayas	4.80	0.70	2.04	2.32	5.28	0.91	2.07	2.51
Mindanao								
Western Mindanao	7.36	0.84	2.60	3.26	6.88	0.84	2.67	3.13
Northern Mindanao	6.92	3.02	4.37	4.59	7.23	3.03	4.26	4.63
Southern Mindanao	11.84	3.55	6.14	6.76	12.54	3.42	6.20	6.89
Central Mindanao	7.90	2.32	2.22	3.74	6.41	2.21	2.24	3.32

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

**Annual average during the designated time period.

are three of the country's economic laggards. Cagayan Valley contributed one of the lowest regional shares--2.69 percent from 1973-1984 (Table 10). The growth performance of this region has been particularly hindered by its inadequate infrastructure base. For example, its road kilometrage was recorded at 12,425.2 kilometers as of 1982 or a density of 0.3 km./sq. km., the lowest in the nation. Inadequate private capital and skilled labor have also been regarded as major factors in its slow rate of increase in regional output. Bicol registered an average share of 3.36 percent while Ilocos recorded an average share of 3.77 percent of the national output (Table 10). Bicol's dismal growth performance has been partly attributed to its inclement weather. On the other hand, the poor quality of infrastructure and utilities, especially roads in Ilocos region, have been considered to have restricted growth in that area. While Ilocos region's kilometrage roads stood at 17,724.9 kilometers as of 1982 or a density of 0.8 km./sq. km., most of these become impassable during the rainy season. Approximately three-fourths of its road system is gravel or dirt road that is eroded during the rainy season.

In the Visayas Island, Western Visayas outpaced Central Visayas in regional shares of GDP (Table 10). Western Visayas (which is composed of Capiz, Guimaras, Aklan, and Negros Occidental) has been the traditional major supplier of sugar. The region provides approximately 75 percent of the country's sugar cane production. The sizable share of Western Visayas' agriculture

sector is a major reason why it is the highest contributor to the island's GDP share and why it ranks third in the nation's regional share of national output (Table 10). Furthermore, it is also in Visayas Island that the lowest GDP share is recorded. Eastern Visayas posted a 2.51 percent share of real gross domestic product (see Appendix). The region's weak growth performance is aggravated by its location along the typhoon belt. Since the majority of the people engage in fishery and farming, the high frequency of typhoons has kept production low. The region is also greatly dependent on traditional commodity exports such as coconut and sugar that have been hit by falling world prices.

In Mindanao Island, Southern Mindanao captured the largest share of 6.89 percent of national output followed by Northern Mindanao which registered 4.63 percent, 3.32 percent for Central Mindanao, and 3.13 percent for Western Mindanao (Table 10). Southern Mindanao's dominance over the rest of the regions may have been enhanced by its locational advantage as the traditional location of large farms and agricultural estates. Southern Mindanao is also the largest area in Mindanao with 31,580 sq. km., following by Northern Mindanao with an area of 28,559 sq. km., 23,024 sq. km. for Central Mindanao, and 18,685 sq. km. for Western Mindanao (see Table 11).

Overall, we can observe that the top contributors to the national output from 1973-1984 are also top industrial regions. Southern Tagalog and Central Luzon accounted for an average

Table 11. Regional Delineation in the Philippines.

Regions	Regional Capital	Region Area km^2
National Capital Region	Metro Manila	2,806
Ilocos	San Fernando	21,568
Cagayan Valley	Tuguegarao	36,403
Central Luzon	San Fernando	18,278
Southern Tagalog	Metro Manila	44,707
Bicol	Lagazpi	17,632
Western Visayas	Iloilo City	20,223
Central Visayas	Cebu City	14,951
Western Visayas	Tacloban City	21,432
Western Mindanao	Zamboanga City	18,685
Northern Mindanao	Cagayan de Oro City	28,559
Southern Mindanao	Davao City	31,580
Central Mindanao	Cotabato City	23,024
TOTAL		299,847

industry share of 15.79 percent and 8.83 percent respectively. Owing to their proximity to Metro Manila both regions have also grown as the primate city's development expanded to the surrounding areas. Central Luzon (which includes Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, and Zambales) has benefited lately from the government's decision to locate the first export processing zone in Bataan. The Bataan Export Processing Zone was primarily established to generate export earnings and provide employment.

The general dominance of Metro Manila and surrounding regions can also be attributed to Southern Tagalog's highest agricultural share of national output. As the nation's top agricultural contributor, it accounted for an average of 15.65 percent of the national agricultural output (Table 10). Aside from its locational advantage as a growth corridor to Metro Manila, it is also the largest regional area among the thirteen regions comprising 44,707 sq. km. or approximately 15 percent of the total land area of the Philippines.

From the service output perspective, Metro Manila, Southern Tagalog, and Central Visayas dominate. Metro Manila led with an average of 39.02 percent, followed by Southern Tagalog with 11.32 percent, and Central Visayas with 8.17 percent (Table 10). Southern Tagalog's strong service output share can be explained by its proximity to Metro Manila. However, Central Visayas has outpaced Central Luzon in the service output share. Central Luzon registered an average of 7.87 percent while Central Visayas

registered an 8.17 percent service output share of national output (Table 10). Central Visayas' strong showing in the service sector can be partly attributed to the designation of Metro Cebu as the growth center for Visayas Island. Metro Cebu has made Central Visayas the second busiest regional port in the country. In fact, most of the shipping companies have their headquarters in Metro Cebu.

As seen initially in the performance of the identified tripolar urban centers (Metro Manila for Luzon, Metro Cebu in Central Visayas for Visayas, and Metro Davao in Southern Mindanao for Mindanao) there is not much indication that the functional integration of the national and regional economies is at hand. From the sectoral output alone, it is easy to infer that economic resources have remained generally concentrated in Metro Manila and its growth corridors throughout the years of growth center policy. It is also the present writer's observation that based on the growth trends alone, there is not much indication that the growth center strategy will eventually enhance the participation of other regions in the economic growth of the country.

On the other hand, the regional inequality in the Philippines has perpetuated a sort of "regional division of labor." As demonstrated by the tripolar urban centers' performances, Metro Manila, taking the lion's share of the national output, has remained basically industrial and service-oriented, Southern Mindanao basically agricultural, and Central Visayas basically service-

oriented, an interesting division of labor that has maintained the structural shares invariant after more than a decade of growth center experience.

Finally, along with the stubborn dispersal of economic resources came some national and regional trends characterizing the Philippine growth center experience. These trends are the subjects of the research hypotheses which are becoming influential in the character of Philippine development.

The Growing National and Regional Trends

One of the structural goals of the growth center strategy is the absorption of labor from an agricultural economy. This structural goal is based on the assumption that economic development requires a vigorous industrialization effort in order to absorb labor from the low productivity agricultural sector into a more productive industrial sector. This particular view has been shared by growth center strategists and regional theorists who rely on a growth-induced industry-led center not only to overcome the constraints posed by the relatively limited capital and resources but also to distribute equitably the fruits of development throughout the regions.

As early as 1954 Arthur Lewis advocated a "big push" theory in the development of underdeveloped economies. His theory rests on the assumption that if investment is concentrated on industrial projects it will give countries the "big push" to overcome economic obstacles to development. Lewis' model is composed of a

capitalistic sector containing manufacturing, industry, mining, and related industries, and a subsistence sector characterized by low productivity and high unemployment. He hypothesized that the supply of labor from the subsistence sector is unlimited as long as real wages in the capitalistic sector are high. The impact of this notion is the continued expansion of the capitalistic sector that would lead to the absorption of the traditional labor activities into the industrial activities.

John C. H. Fei and Gustav Ranis, in their 1964 book entitled Development of the Labor Surplus Economy,[88] contended that given a state of a dualistic economy (that is, the subsistence agricultural sector and the commercialized industrial sector), labor is a non-scarce factor augmented by high rates of population growth in the subsistence sector and capital is scarce because of low rates of savings and investments in the industrial sector. The consequent logic of this idea is the position that only through an urban-industrial expansion can economic development be secured, an economic development that entails the continuing absorption of labor from the agricultural sector to the industrial sector.

The traditional wisdom of these theorists was also developed by Albert O. Hirschman in 1958 who argued that the integration of labor is best approached by the designation of "growth points" that can create polarization and trickle-down effects to the surrounding regional economies. Taking cues from Perroux's growth pole theory and Myrdal's spread and backwash effects, Hirschman advocated the

logic of unequal development as a regional planning doctrine. This advocacy underlines Hirschman's faith in the play of market forces in an industry-led center which will lead to the eventual integration of labor, capital, market, and resources.

Another related structural goal of growth center strategy is the development of the economy via an export promotion policy. The export promotion policy is the twin phenomenon of the labor absorption policy that growth center advocates have been advancing in developing an economy.

Douglass C. North in his famous 1955 essay on Location Theory and Regional Economic Growth[89] proposed that regional growth takes place around an export-base economy. He argued that the success of the export-base is a crucial factor in the rate of growth among regions. To crystallize his theory (in a Lewisian note) he categorized the regional economy into residentiary and export-base sectors. The residentiary sector refers to local productive activities which develop where the consuming population resides. On the other hand, the export-base sector refers to the more productive force in economic growth relying primarily on exportable commodities as sources of income and revenues.

Expanding on North's theory, Douglass S. Paauw and John C. H. Fei argued that the primary aim of economic growth is the integration of the traditional agricultural sector and the modern export-oriented sector in a sectoral interaction. The sectoral interaction essentially corresponds to a hierarchy and

transitionary modes of operation, namely: import substitution, export promotion, and export substitution. Import substitution is a mode of operation where the sectoral output is girded toward the domestic market to replace imported consumer goods. The sectoral output is basically characterized by an internal industrial orientation enhanced by nationalistic trade policies. Export promotion, on the other hand, orients the sectoral output toward the expansion of primary product exports. This mode of operation relies heavily upon land-based exports within the context of the free market system. Lastly, the export substitution mode of operation departs drastically from the internally-oriented and land-based export phases of economic development. In this instance, the sectoral output is oriented toward the expansion of non-traditional exports based upon labor-intensive manufacturers rather than land-based exports. The emergence of this phase assumes an adequate formation of entrepreneurial skills and competitive labor (in this case, cheap labor) to penetrate foreign markets.

The common themes (of industrial expansion and labor and export expansion policies) running through the aforementioned theories are reflected in the growth center doctrine that the national government adopted since the early seventies. The urban and agro-industrial expansion plan of the Philippines up to the year 2000 (which is based on the scenario of a growing rural-urban migration and modernization process) has laid out and implemented growth center strategies in the three major islands and thirteen

regions in order to functionally integrate the regional economies toward a more developed and modernized economy.

However, after more than a decade of growth center experience, it was observed that national and regional trends are emerging that characterize the economy. These trends clearly demonstrate the following hypotheses:

Hypothesis 1: Under the growth center doctrine, the sectoral share of GDP of the service sector has grown relative to agriculture and industry.

Based on the sectoral analysis, the hypothesis is not supported by the data. In the first quadrennium (1973-1976) the service sector accounted for 38.41 percent of the GDP while the industry and agriculture sectors accounted for 34.83 percent and 26.77 percent respectively. In the second quadrennium it declined together with the agriculture sector, while the industry sector increased its sectoral share to 36.13 percent. In the third quadrennium (1981-1984) a similar performance was recorded with the industry sector increasing to 36.34 percent and agriculture and service sectors decreasing to 25.58 percent and 38.08 percent in the sectoral shares respectively. Despite the decline, overall the percentage share of GDP of the service sector has always been greater than agriculture and industry (Table 12).

The view from the regions, furthermore, shows a number of areas where each sectoral share predominates output determination. In Luzon area, Cagayan Valley and Bicol regions have consistently shown a large share in agricultural output while Southern Tagalog

Table 12. Sectoral Analysis of Gross Domestic Product (%).*

	First Quadrennium** (1973-1976)				Second Quadrennium** (1977-1980)			
	Aggie	Industry	Service	GDP	Aggie	Industry	Service	GDP
Philippines	26.77	34.82	38.41	100.00	25.62	36.13	38.25	100.00
Luzon								
Metro Manila	0.00	52.45	47.55	100.00	0.00	52.19	47.81	100.00
Ilocos	34.51	23.96	41.53	100.00	35.83	25.11	39.06	100.00
Cagayan Valley	44.66	23.16	32.18	100.00	44.15	25.71	30.15	100.00
Central Luzon	27.16	36.37	36.48	100.00	28.01	36.35	35.64	100.00
Southern Tagalog	30.40	38.67	30.94	100.00	28.53	41.10	30.37	100.00
Bicol	53.79	14.19	32.03	100.00	53.35	14.68	31.97	100.00
Visayas								
Western Visayas	44.15	25.02	30.84	100.00	39.77	27.38	32.84	100.00
Central Visayas	23.26	32.54	44.20	100.00	22.26	34.66	43.09	100.00
Eastern Visayas	55.71	13.85	30.44	100.00	55.22	13.73	31.05	100.00
Mindanao								
Western Mindanao	52.63	9.97	37.40	100.00	59.62	9.57	30.81	100.00
Northern Mindanao	45.98	20.26	33.76	100.00	38.34	26.02	35.64	100.00
Southern Mindanao	49.91	16.04	34.05	100.00	47.15	18.27	34.58	100.00
Central Mindanao	46.25	24.54	29.21	100.00	49.01	24.71	26.29	100.00

Source: Calculated from National Economic Development Authority, Regional Accounts of the Philippines, 1973-1984.

*GDP in millions of pesos at constant prices.

**Annual average during the designated time period.

Table 12 (cont'd.).*

	Third Quadrennium** (1981-1984)				Average** (1973-1984)			
	Aggie	Industry	Service	GDP	Aggie	Industry	Service	GDP
Philippines	25.58	36.34	38.08	100.00	25.99	35.76	38.25	100.00
Luzon								
Metro Manila	0.00	52.29	47.71	100.00	0.00	52.31	47.69	100.00
Ilocos	36.45	21.55	32.00	100.00	35.60	26.87	37.53	100.00
Cagayan Valley	43.72	26.31	29.97	100.00	44.17	25.06	30.77	100.00
Central Luzon	28.75	37.62	33.63	100.00	27.97	36.78	35.25	100.00
Southern Tagalog	29.00	40.54	30.46	100.00	29.31	36.26	30.59	100.00
Bicol	52.59	15.17	32.24	100.00	53.24	14.63	32.08	100.00
Visayas								
Western Visayas	39.50	28.28	32.22	100.00	41.14	26.89	31.97	100.00
Central Visayas	21.99	35.48	42.53	100.00	22.50	34.23	43.27	100.00
Eastern Visayas	55.31	13.55	31.15	100.00	55.41	13.71	30.88	100.00
Mindanao								
Western Mindanao	59.65	9.82	30.53	100.00	57.30	9.79	32.91	100.00
Northern Mindanao	38.43	24.60	36.97	100.00	40.92	23.63	35.46	100.00
Southern Mindanao	46.92	17.99	35.09	100.00	47.99	17.43	34.57	100.00
Central Mindanao	49.04	23.83	27.12	100.00	48.10	24.36	27.54	100.00

Source: Calculated from National Economic Development Authority, Regional Accounts of the Philippines, 1973-1984.

*GDP in millions of pesos at constant prices.

**Annual average during the designated time period.

and Metro Manila continue to dominate the industry sector. In Visayas area, Western Visayas and Eastern Visayas have also maintained their large agricultural output. But all of the Mindanao regions recorded a dominant agricultural output.

Overall, in the first quadrennium the service sector dominated twelve regions to one against the industry sector, while it fared short against the agriculture sector by three regions to eight regions. The second quadrennium revealed a similar pattern, except for Central Luzon which picked up a strong showing in the industrial sector. The third quadrennium was not much different either because it just repeated the second quadrennium's trend (Table 13).

Curiously enough, the three identified growth center regions make for an interesting combination: Metro Manila is basically industrial, Southern Mindanao is basically agricultural, and Central Visayas is basically service-oriented. Metro Cebu's central location makes for a convenient distribution center of Metro Manila's industrial products and Southern Mindanao's agricultural supply.

In the current planning milieu, only the industry sector displayed an increase; the rest declined. One of the significant notes to the industry sector is that at a time when many countries are moving strongly toward the service sector (Table 13), the industry sector tentatively held its ground. However, the increase in the industry sector is so small that it has not significantly revealed the ability of the growth center policy to generate

Table 13. Distribution of GDP of Selected Countries (%).*

	Agriculture		Industry		Service	
	1965	1984	1965	1984	1965	1984
Low-Income Economies						
Pakistan	40	24	34	49	40	47
India	47	35	37	92	31	38
Togo	45	22	31	34	34	50
Central African Republic	46	39	20	28	38	40
Middle-Income Economies						
Morocco	23	17	44	49	49	51
Indonesia	59	26	20	40	29	34
Thailand	35	20	37	28	42	52
Nigeria	53	27	26	34	29	43
Turkey	34	19	41	57	41	47
Upper-Middle-Income Economies						
Republic of Korea	38	14	43	68	37	47
Brazil	19	13	59	62	48	52
Chile	9	6	64	60	52	56
Argentina	17	12	75	69	42	50
Hong Kong	2	1	64	22	58	78
Israel	8	5	37	27	55	68
Industrial Market Economies						
Canada	5	3	57	24	61	72
Japan	9	3	75	71	48	56
United Kingdom	3	2	71	58	56	62
United States	3	2	67	53	59	66
Denmark	8	5	52	42	60	70
Sweden	6	3	68	53	53	66

Source: World Bank, World Development Report 1986 (IBRD, 1986), pp. 184-185.

*GDP is expressed in millions of dollars at constant prices.

considerable industrial growth. In fact, in comparison to the industrial growth of some middle-income and low-income economies such as Thailand, Indonesia, Nigeria, Morocco, Turkey, Pakistan, India, and Togo (Table 13), the Philippine industrial experience may be relatively small if seen in the context of a growth policy that is oriented toward the expansion of the industrial output and functional integration of national and regional economies through a growth-induced industry-led center.

It must be noted, however, that the nature of industrial output under the growth center doctrine in the Philippines is still predominantly manufacturing. For example, data on GDP by industrial origin (from 1973-1984) shows that manufacturing registers an annual average of more than 71 percent in the breakdown of industrial share of the industrial sector (see Appendix). The predominance of manufacturing can be partly explained by the fact that the Philippine industrialization, which began in 1949, confined the industrialization process primarily to the establishment of manufacturing enterprises (with incentives provided by the institution of import and exchange controls).

Presently, the term "industrialization" in the Philippines generally covers a number of processes: (1) simple elaboration of raw materials; (2) the transformation of processed raw materials into parts; (3) assembly of parts; and (4) importation of machinery (capital goods) and raw materials (intermediate goods) to sustain the process of industrialization.

This is aggravated by the fact that the decline in the remaining sectoral shares has not significantly changed the sharing picture. The service sector more or less retained its GDP share by registering an average of 38.25 percent of total national output from 1973-1984, while the agriculture sector registered its declining share at 25.99 percent of total national output from 1973-1984 (a phenomenon that is common among developing as well as developed economies (Table 13)).

The tentative nature of industrial growth under the growth center strategy can also be seen in the increasing drift of labor toward the service sector. It was hypothesized that:

Hypothesis 2: Under the growth center doctrine, the employment share of the service sector has grown relative to agriculture and industry.

It can readily be observed from Table 14 that the hypothesis is supported by the data. Based on the regional employment analysis, the average sectoral share of the service sector increased from 33.58 percent in 1973-1975 to 35.44 percent in 1980-1983. The industry sector's average sectoral share, on the other hand, increased from 14.74 percent in 1973-1975 to 15.21 percent in 1980-1983. The agriculture sector, which accounted for more than 50 percent of the average sectoral share from 1973-1983, posted a declining share of 51.68 percent in 1973-1975 to 49.35 percent in 1980-1983.

The view from the regions revealed that only Metro Manila and Central Luzon registered the two highest regional service-

Table 14. Regional Employment Analysis (%).

	Average Sectoral Share*								Average Sectoral Growth*			
	1973-1975				1980-1983				1973-1983			
	Aggie	Industry	Service	Total	Aggie	Industry	Service	Total	Aggie	Industry	Service	Total
Philippines	51.68	14.74	33.58	100.00	49.35	15.21	35.44	100.00	2.81	4.94	6.03	4.13
Luzon												
Metro Manila	1.41	31.01	67.57	100.00	2.10	29.72	68.18	100.00	33.39	0.49	7.23	5.02
Ilocos	61.39	11.83	26.79	100.00	57.35	14.55	28.10	100.00	6.00	19.00	15.91	9.86
Cagayan Valley	54.87	13.76	31.34	100.00	71.93	8.11	19.96	100.00	4.91	-6.39	1.99	3.17
Central Luzon	40.35	18.25	41.36	100.00	34.36	20.34	45.31	100.00	-8.22	4.08	5.54	-0.31
Southern Tagalog	46.27	18.95	34.78	100.00	42.91	18.81	38.28	100.00	-2.42	-1.00	7.14	1.15
Bicol	61.68	12.23	26.09	100.00	62.47	12.92	24.60	100.00	7.18	4.86	0.30	4.86
Visayas												
Western Visayas	59.70	10.27	30.03	100.00	56.02	12.16	31.82	100.00	-0.53	11.27	6.54	2.79
Central Visayas	56.47	16.69	26.86	100.00	53.44	16.03	30.52	100.00	-0.57	5.41	13.50	4.04
Eastern Visayas	68.47	7.10	24.43	100.00	63.65	9.32	22.03	100.00	1.12	21.66	-0.49	2.03
Mindanao												
Western Mindanao	66.12	7.06	26.81	100.00	61.21	5.95	32.84	100.00	-4.08	-13.95	8.80	-1.49
Northern Mindanao	59.60	12.71	27.69	100.00	55.47	11.31	33.81	100.00	-2.57	-9.48	11.61	0.37
Southern Mindanao	60.50	7.76	31.74	100.00	61.54	7.50	30.96	100.00	2.93	-5.60	6.32	2.69
Central Mindanao	67.94	9.99	22.07	100.00	65.37	11.58	23.05	100.00	-1.25	12.07	2.49	0.89

Sources: Calculated from National Census and Statistics Office, Employment Statistics (1973, 1974, 1975, 1980, 1981, and 1983).

*Annual average during the designated time period.

employment share (Table 14). Metro Manila's service-oriented employment is maintained by its locational advantage as the center of the nation's urban goods and services. The 1983 Philippine Statistical Yearbook reports that Metro Manila registers 52.27 percent in public and private services, followed by 21.52 percent in wholesale and retail trade, 13.76 percent in transportation, storage, and communication, 11.76 percent in financing, insurance, real estate, and business services, and .69 percent for the rest of the service sector's breakdown not adequately defined.[90]

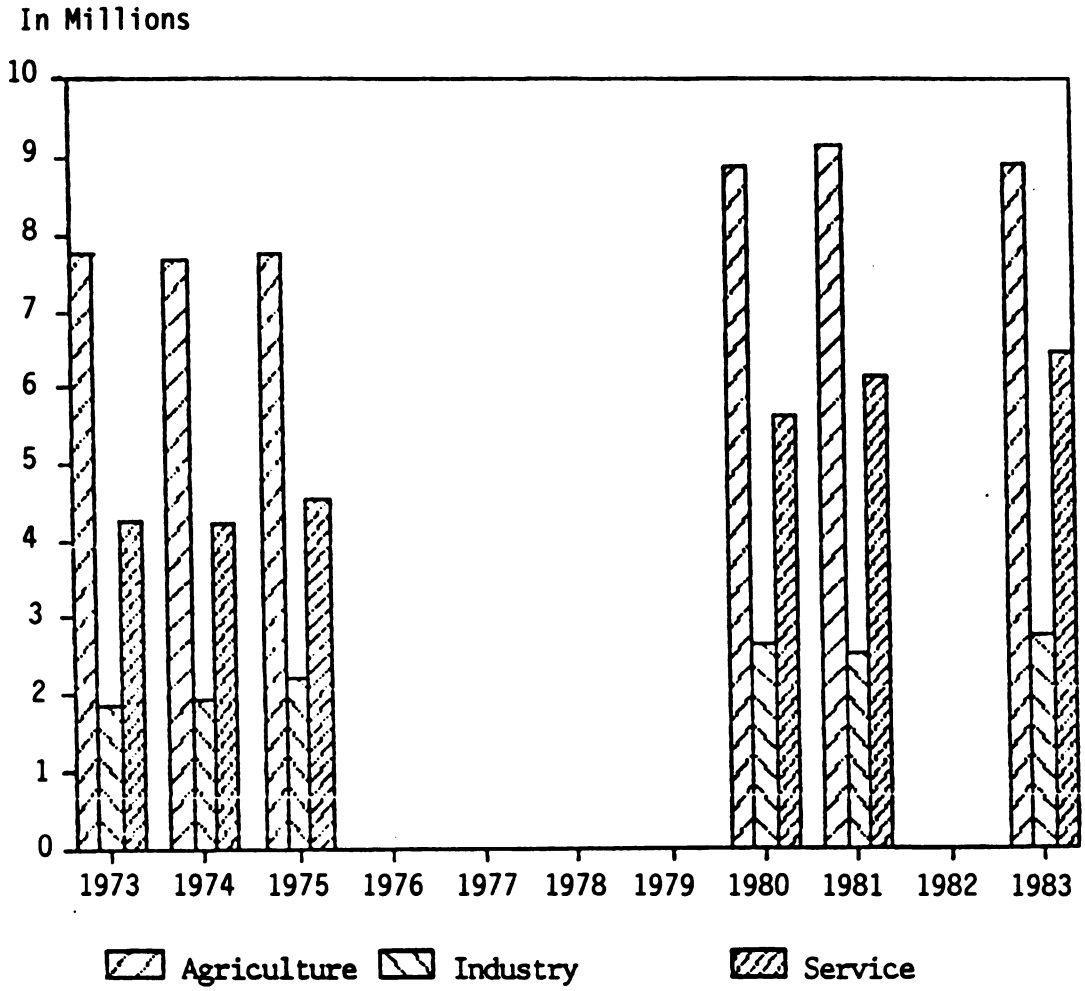
Metro Manila's strong service economy is further enhanced by the fact that it outpaced the national service sector's breakdown (except for wholesale and retail trade and activities not adequately defined. The national service economy's breakdown posted the following: (1) 48.43 percent for public and private services; (2) 32.00 percent for wholesale and retail trade; (3) 1.25 percent for transportation, storage, and communication; (4) 5.65 percent for financing, insurance, real estate, and business services; and (5).99 percent for activities not adequately defined.[91]

Central Luzon's strong showing in regional employment share may have been enhanced by its proximity to Metro Manila area. The large employment share of agriculture in many regions is understandable because the Philippines is still basically rural and agricultural.

In a basically rural and agricultural population, however, for the service sector to attract over a third of the labor force must

be a sign of a trend toward tertiarization. This observation may be supported by the fact that in terms of average sectoral growth the service sector outpaced both the national and other sectoral employment growth rates. The service sector reported a 6.03 percent growth rate followed by industry of 4.94 percent and agriculture of 2.81 percent (Table 14). Agriculture's large average sectoral share is countered by its declining share and weak performance in average sectoral growth--a likelihood of further diminishment of the agriculture employment share.

On the other hand, from 1973 to 1983 the employment attraction of the service sector has shown more or less stable increase. Figure 5 reflects its employment attraction by showing a relatively consistent growth over the years. Such performance has usually been linked to the relative resilience of the service-oriented employment. One possible explanation for its resilience is the labor's relative insensitivity to various macro-economic forces such as price fluctuations, rising inflation, and skyrocketing balance of payment deficits. Essential services which have no practical substitutes have to be provided whatever the price may be (as long as it is within some reasonable range). Another possible explanation for its resilience is its atomistic structure. Some of its elements are so small and diverse that even in the most difficult economic times they thrive. For example, wholesale and retail trade, hawkers, small market stalls, sidewalk vendors, and peddlers



Source of basic data: National Census and Statistics Office, Philippines

Figure 5. Philippine Employment by Sector

in the Philippines seem to increase even if the economy is languishing in a deep recession.

Given the present inability of the industry sector to absorb the labor force released from the agriculture sector, it is also of equal importance to investigate complementing factors in the growing regional trends. The drift toward the service sector of the Philippine economy cannot be separated from the twin phenomenon of externalization. It was hypothesized that:

Hypothesis 3: Under the growth center doctrine, the combined national trade deficit for capital and intermediate goods has increased.

Table 15 and Figure 6 show that from 1974 to 1984 the balance of trade has always been negative, reflecting the orientation of the Philippine economy to foreign-sourced commodities. The positive balance of payment in 1973 has been associated with the commodity boom in 1973 when production in industrial countries peaked at 6.3 percent, spurring on world trade which grew by 12.5 percent in volume terms. The Philippine economy may have benefited from this as our exports registered a positive external trade of $240.57 million in 1973. After 1973, the balance of trade slumped and since then it has never recovered. The Philippines' ballooning balance of payment deficit is closely tied up with its outward-oriented policy of export expansion. In the context of the growing integration of the world economy, developing countries are directly affected by fluctuations in the industrial world. The

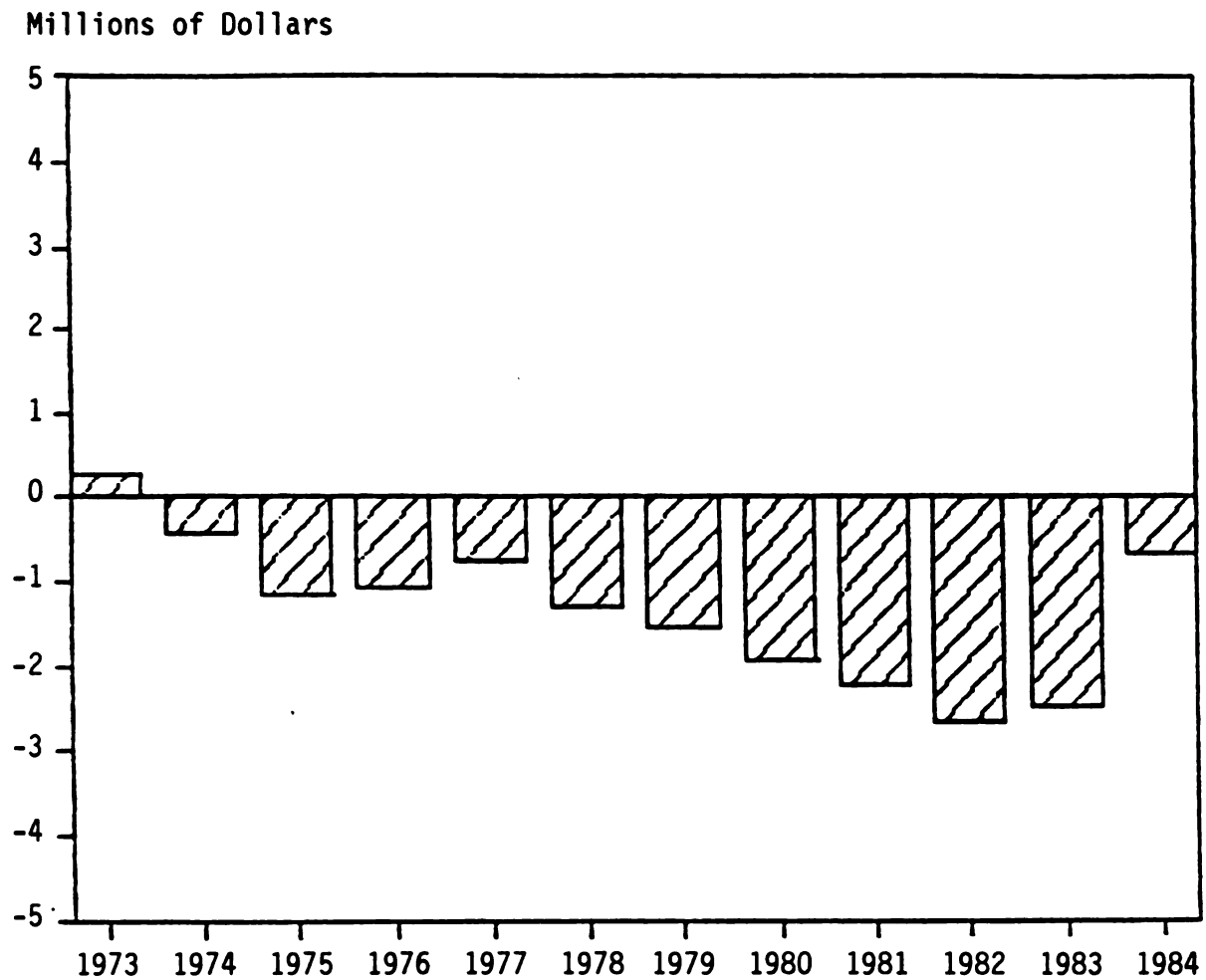
Table 15. Foreign Trade Profile of the Philippines.

Year	Balance of Trade (FOB, $M)	Export Composition (%)		Import Composition (%)			
		Aggie* Products	Manufacturers	Consumer Goods	Capital Goods	Intermediate Goods**	Mineral Fuels
1973	240.57	87.32	12.57	18.01	30.69	39.50	11.75
1974	-418.27	88.04	11.85	14.98	26.23	38.00	20.79
1975	-1164.71	80.87	19.05	15.94	33.21	28.59	22.26
1976	-1059.8	72.76	26.30	15.00	33.71	26.78	24.51
1977	-763.87	73.18	26.37	16.25	27.52	30.86	25.37
1978	-1307.33	66.33	33.02	17.27	29.60	31.36	21.77
1979	-1540.54	63.38	35.99	17.38	29.06	31.00	22.55
1980	-1939.12	58.62	40.74	18.45	25.71	26.74	29.10
1981	-2223.52	53.11	46.71	20.38	24.16	24.52	30.94
1982	-2646.33	47.36	52.46	22.31	23.39	26.95	27.45
1983	-2481.34	43.14	56.20	22.46	23.51	25.54	28.48
1984	-680.00	42.11	56.22	6.18	18.95	47.58	27.30

Source of basic data: Central Bank of the Philippines.

*Includes coconut, sugar, abaca, tobacco and their products, forest products, mineral products, and fruits and vegetables.

**Includes raw materials for use of industries.



Source of basic data: Central Bank of the Philippines.

Figure 6. Balance of Trade

Philippines is no exception, because it has never been able to avoid the cyclical influence of industrial countries.

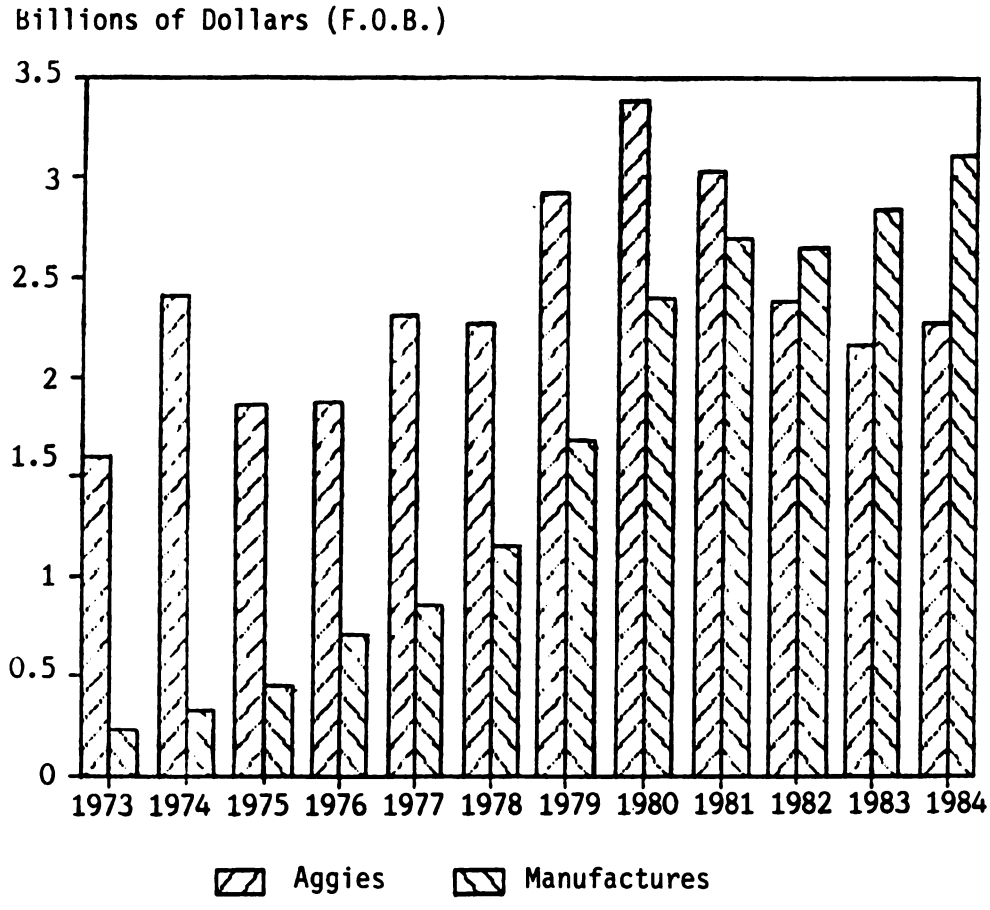
Such a predicament may be aggravated by the fact that because of industrial shortfall of the growth center policy due to the tertiarization, the economy has to look for external sources of industrial inputs.

The hypothesis is supported by the data that from 1973 to 1984 capital goods and intermediate goods represent approximately 27.14 percent and 31.45 percent of the total import composition respectively (Table 15). Capital goods include capital, machinery, and equipment while intermediate goods include raw materials for use of various industries. Although their growth rates vary from year to year, overall both commodity imports combined managed to represent more than 50 percent of the total import composition (Table 15). The large share of capital goods and intermediate goods has been promoted by the nature of industrial policy pursued in the early seventies.

Within the context of the country's heavy dependence on foreign trade and growing tertiarization, the country is placed in a lop-sided interdependence with industrial countries. Such a lop-sided relationship is evidenced by falling primary commodity exports but rising imports of raw materials and equipment. In 1973 Philippine agricultural commodity exports expanded at approximately $1.8 billion and then peaked at about $5.8 billion in 1980 and dropped to about $5.4 billion in 1984. However, the manufacture

commodity exports, which is composed of non-traditional export products, bounced back in 1983 and 1984 by registering approximate earnings of $2.8 billion and $3.1 billion respectively (see Figure 7). These feeble signs of revitalization by the manufacturing sector may have been aided by the slight recovery of the world economy and the government's policy of prioritizing on seven non-traditional export products, namely: garments, furniture, electronics, gifts and houseware, footwear and leathergoods, and construction services. Nevertheless, despite all these the total commodity exports have declined.

The broadening externalization of the national economy has not only shrunk the export share but also strengthened our import dependence. For a basically agricultural economy to be squeezed between stagnating export earnings and soaring import expenditures is not compatible with the growth center structural goal of export expansion. This pressure makes the country vulnerable to high interest rates and consequently it has had to deflate in response to liquidity crisis. In fact, the growing externalization of the economy has already brought the country into serious debt problems. In 1985 the national debt has been estimated to be well above $25.6 billion in which interest payments alone on foreign debt have taken up well over half of export earnings. In order to obtain an additional $1.5 billion in loans, the International Monetary Fund imposed upon the Philippines an austerity program which entails the devaluation of the peso and depression of wages.



Source of basic data: Central Bank of the Philippines.

Figure 7. Philippine Commodity Exports

An important part of this crisis is that capital markets have become highly integrated since currency convertibility was established. While this integration has been lauded to provide international trade and cooperation, viewed from the borrower's perspective a sharp rise in U.S. interest rates can turn an acceptable debt service burden for a developing country into a debt crisis.

On the whole, we can surmise that within the context of the growing interdependence of the world economy the tendency to view our chance for development along the precedent path of an outward-looking economy exhibits the great defect of having disregarded the predicament of the "catching-up" process, our asymmetrical position in the "bargaining table," and weakness of operating based on what has been termed "competitive advantage."

It was also assumed, moreover, that from a strict regional viewpoint as gauged from regional trade statistics of port districts, the negative balance of trade also indicates dependence on external-sourced commodities by regional economies. Specifically, it was hypothesized that:

Hypothesis 4: Under the growth center doctrine, the total regional share of inward trade has grown relative to total regional share of outward trade by port districts.

As statistics bear out, the total regional balance of trade by port districts revealed negative results. From 1979 to 1983, total regional balance of trade by port districts recorded (by thousand tons) negative 5634.5, 5693.6, 5085.9, 4811.6, and 9649.4

respectively (Table 16a). The view from the regions showed that five out of ten regions with ports registered negative regional balance of trade, the foremost of which is Metro Manila which accounted for an average of -5236.7 thousand tons, followed by Southern Tagalog with -3083.3, Central Visayas with -225.2, Bicol with -82.5, and Eastern Visayas with -50.3 (Table 16a). Metro Manila's worst performance may be expected because of its heavy dependence on external-sourced commodities (Table 16a). Southern Tagalog's performance may have been impacted by virtue of its proximity to Metro Manila and its three relatively busy ports. Central Visayas' negative balance of trade may have been exacerbated by its strong tertiary sector which has to look for external-sourced commodities, especially for consumption. On the other hand, Southern Mindanao recorded the highest positive regional balance of trade. Interestingly, these regions, except for Southern Tagalog, are the designated regional growth centers. The regional growth centers, which are basically industry and service-oriented, appeared more vulnerable to externalization than an agriculture-based region. This is compatible with our contention that the present growth center doctrine in the Philippines has failed to counteract the growing externalization of the economy.

The hypothesis, furthermore, is supported by the data based on percent of inward trade to total regional trade. Overall, inward trade accounted for 54.35 percent, which is more than one-half of the total regional trade. Although port districts vary in their

Table 16a. Regional Trade Analysis--Regional Balance of Trade by Port Districts (000 tons).

Region	Port District	1979	1980	1981	1982	1983	Average
Metro Manila	Manila	-4215.3	-4244.4	-4361.0	-5470.7	-7892.2	-5236.7
Cagayan Valley	Irene	95.1	80.1	183.2	120.7	224.8	140.8
Southern Tagalog	Batangas	-4587.1	-4281.1	-3580.7	-3236.7	-4147.7	
	Puerto Princesa	963.2	823.8	736.1	586.5	484.0	
	San Fernando	175.8	403.0	279.3	-26.7	-6.4	
	Sub-total	-3448.1	-3054.4	-2565.3	-2676.8	-3670.1	-3083.3
Bicol	Lagaspi	-119.2	-91.1	62.4	-93.4	-171.1	-82.5
Western Visayas	Iloilo	1375.4	1408.1	577.6	534.4	-343.5	710.4
Central Visayas	Cebu	-707.2	-588.3	-346.3	-68.7	-466.6	
	Dumaguate	185.9	210.0	269.3	203.7	182.2	
	Sub-total	-521.3	-378.3	-77.1	135.0	-284.4	-225.2
Eastern Visayas	Tacloban	-25.5	23.8	-57.8	-100.8	-91.2	-50.3
Western Mindanao	Zamboanga	577.3	3.7	-29.3	214.6	212.3	
	Jolo	-19.5	-16.2	-7.5	17.9	-6.9	
	Sub-total	557.8	-12.5	-36.8	232.5	205.4	189.3
Northern Mindanao	Cagayan de Oro	-648.7	-851.6	-253.8	-237.2	270.4	
	Iligan	-14.3	331.5	404.0	314.1	170.1	
	Surigao	-45.2	-469.8	-277.2	47.7	227.5	
	Masao	248.7	284.2	117.5	135.5	298.4	
	Sub-total	-459-5	-705.8	-9.6	260.1	966.4	10.3
Southern Mindanao	Davao	622.2	772.0	758.2	1340.0	841.5	
	General Santos	503.9	493.6	460.8	408.6	457.0	
	Polloc	0.0	15.2	-20.7	498.7	108.0	
	Sub-total	1126.1	1280.8	1198.4	2247.3	1406.6	1451.8
	TOTAL	-5634.5	-5693.6	-5085.9	-4811.6	-9649.4	-6175.0

Sources: Calculated from Philippine Ports Authority, Regional Trade Statistics (1979-1983).

inward trade performances, the majority of the regions revealed 50 percent or more inward trade to their total regional trade, with two regions registering in the 40 percent bracket, and two regions averaging in the 30 and 20 percent brackets respectively (Table 16b). As usual, Metro Manila, Southern Tagalog, and Central Visayas recorded a strong dependence on inward trade. However, the relative sensitivity of Bicol, Eastern Visayas, and Northern Mindanao to inward trade is growing. Bicol's relative sensitivity to inward trade may have been promoted by agricultural inputs such as copra to their oil mills. Eastern Visayas, which is a typhoon-stricken region, has to depend on other regions for basic commodities such as rice, corn, and construction materials. Northern Mindanao's high demand for inward trade may have been pushed up by agricultural imports such as fertilizers, chemicals, and metal products needed for some of their industries such as the Kawasaki Sinter Mill and Del Monte Plantation. In fact, Northern Mindanao's inward trade consists of 66.97 percent import, which is second to Metro Manila (Table 16c).

The high percentage of import to total inward trade among regions such as Metro Manila and Southern Tagalog is consistent with their character as the most industrialized regions in the country. Their import-dependence is encouraged by their basic needs for raw materials, replacement parts, and new equipment. Curiously enough, Central Visayas' position as a regional growth center had a sluggish 9.70 percent import composition to its total

Table 16b. Regional Trade Analysis--Percent of Inward Trade to Total Regional Trade.

Region	Port District	1979	1980	1981	1982	1983	Regional Average 1979-1983
Metro Manila	Manila	58.58	59.22	59.58	62.01	66.82	61.24
Cagayan Valley	Irene	28.26	31.32	10.70	27.21	20.99	23.70
Southern Tagalog	Batangas	71.94	72.45	71.91	69.35	73.74	
	Puerto Princesa	7.84	10.16	14.27	14.85	16.99	
	San Fernando	43.11	37.23	39.79	50.95	50.24	
	Regional ave. %	63.40	26.52	62.14	62.63	67.00	56.34
Bicol	Legaspi	58.05	56.43	45.99	57.02	61.14	55.73
Western Visayas	Iloilo	35.94	36.59	42.51	45.09	53.78	42.78
Central Visayas	Cebu	55.95	55.69	52.85	50.51	53.80	
	Dumaguate	37.74	36.43	31.78	38.26	40.55	
	Regional ave. %	53.89	53.18	50.57	49.12	52.00	51.75
Eastern Visayas	Tacloban	51.06	48.93	52.66	54.77	53.65	52.21
Western Mindanao	Zamboanga	36.74	49.89	50.89	43.55	44.59	
	Jolo	56.24	54.58	51.88	46.10	51.53	
	Regional ave. %	38.05	50.34	51.00	43.86	45.31	45.71
Northern Mindanao	Cagayan de Oro	52.90	53.52	51.28	51.04	48.46	
	Iligan	50.28	43.84	42.43	44.17	46.53	
	Surigao	51.12	61.04	57.65	48.39	43.15	
	Maso	33.26	31.31	40.19	37.06	31.29	
	Regional ave. %	51.39	52.00	50.03	49.19	46.47	50.00
Southern Mindanao	Davao	40.90	37.46	37.68	32.42	37.35	
	General Santos	34.74	29.76	30.36	34.08	29.82	
	Polloc	0.00	48.18	51.82	7.13	40.05	
	Regional ave. %	38.90	36.42	37.56	30.20	35.94	35.80
	TOTAL	53.75	53.92	53.75	53.34	56.97	54.35

*Sources: Calculated from Philippine Ports Authority, Regional Trade Statistics (1979-1983).

Table 16c. Regional Trade Analysis--Percent of Import to Total Inward Regional Trade.

Region	Port District	1979	1980	1981	1982	1983	'79-'83 Average
Metro Manila	Manila	68.37	68.71	71.85	67.57	64.61	68.22
Cagayan Valley	Irene	0.49	0.00	6.43	0.62	0.33	1.57
Southern Tagalog	Batangas	85.35	78.85	78.71	76.09	74.84	
	Puerto Princesa	0.16	0.19	0.17	2.49	2.20	
	San Fernando	18.98	21.21	21.19	40.25	44.93	
	Regional ave. %	79.94	18.03	72.18	70.87	70.84	62.37
Bicol	Legaspi	1.80	28.11	3.17	0.82	0.88	6.96
Western Visayas	Iloilo	6.04	4.15	4.33	6.04	6.17	5.35
Central Visayas	Cebu	9.43	11.16	11.30	9.79	9.83	
	Dumaguete	5.03	0.06	5.09	3.19	3.75	
	Regional ave. %	9.08	10.17	10.87	9.21	9.18	9.70
Eastern Visayas	Tacloban	0.58	1.77	5.85	0.30	8.14	3.33
Western Mindanao	Zamboanga	0.50	2.29	1.18	1.85	1.18	
	Jolo	0.00	0.00	0.00	0.00	0.00	
	Regional ave. %	0.54	2.05	1.05	1.62	1.05	1.26
Northern Mindanao	Cagayan de Oro	78.42	79.40	77.22	75.57	70.33	
	Iligan	52.26	37.62	28.02	49.01	53.81	
	Surigao	64.15	62.20	53.05	52.54	53.69	
	Masao	0.19	0.36	0.48	18.55	1.84	
	Regional ave %	70.40	69.56	63.95	68.10	62.82	66.97
Southern Mindanao	Davao	12.78	13.26	12.22	19.90	16.14	
	General Santos	11.89	17.92	21.25	25.25	18.51	
	Polloc	0.00	0.52	0.76	1.51	0.00	
	Regional ave. %	12.52	12.75	12.13	20.82	14.63	14.57
	TOTAL	57.05	56.42	54.92	53.31	50.92	54.52

Sources: Calculated from Philippine Ports Authority, Regional Trade Statistics (1979-1983).

inward trade. As a strong service-oriented economy, its needs are basically concentrated on basic consumer goods which can be generally met through domestic trade. As mentioned earlier, Central Visayas remains the distribution center of Southern Mindanao's agricultural supply and Metro Manila's industrial and manufacturing output. The sensitivity of industry-led or tertiary-led centers to externalization is significant in our growth center experience. It is significant because certain regions with a large agricultural base have shown more resilience from the full impact of industrial slowdown and heavy dependence on external-sourced products. The reliance of growth center doctrine on a growth-induced industry-led center and export-expansion policies does not seem to offer much hope in our quest for development. The setback that the industrial output and export suffered as a result of a growing trend toward tertiarization and externalization, peso devaluation, and fluctuations in the industrial world may have given us important lessons for the future.

CHAPTER VI

SUMMARY AND CONCLUSIONS

This study has focused on the results of the continued application of the growth center doctrine as a model for regional development in the Philippines. This focus on growth center is part and parcel of the increasing pursuit of unequal development as a matter of regional policy. The basic idea is that urban-industrial expansion and functional integration of peripheral areas can be achieved by concentrating infrastructure and investments at selected growth centers. In this manner, the selected growth centers with their polarizing effects would eventually spin off from the center to the surrounding areas.

In the Philippines, the growth center doctrine has been articulated in the various development plans and policies of the government. Its contents include growth center strategies such as: selective decentralization, creation of Regional Development Councils (RDCs), designation of a higher hierarchy of tripolar urban centers, and urban-industrial expansion through export-expansion and agro-industrial development. These growth center strategies have been pursued by the government since the early part of the seventies to stimulate the dispersal of industrial and commercial activities and to enhance the participation of the

regions in the economic growth of the country. This is in view of the fact that for a long time industrial and commercial activities have been agglomerating in Metro Manila while the rest of the regions lagged behind, strengthening the condition of a dualistic economy.

Summary of Findings

In the context of the growing debate surrounding the merits of growth center as a regional policy and doctrine of unequal development, this study is an attempt to participate in that debate. Specifically, this study examined the results of the continued application of the growth center theory as a model for regional development in the Philippines. This was done by examining data on national and regional growth, tertiarization, and externalization of national as well as regional economics. Conclusions drawn from analysis of the data are as follows:

The Growth Profile of Philippine Regions

(1) From 1973 to 1984, the economic growth of the Philippines has been tapering off, registering an average annual rate of 7 percent in 1973-1976 quadrennium, slowing down to 6 percent in the next quadrennium, and plunging below 1 percent in 1981-1984 quadrennium. In fact, 1984 ended in a negative 4.5 percent.

(2) The prominent growth areas per major island group are: Metro Manila for Luzon, Central Visayas for the Visayas, and Western Mindanao for Mindanao. The prominence of both Metro Manila and Central Visayas has been enhanced by their growth pacesetters--Manila and Metro Cebu. However, Metro Davao, the identified growth center for Mindanao, has not pushed further Southern Mindanao's growth thrust. Southern Mindanao was outpaced by Western Mindanao in terms of growth rate.

(3) Industry, the engine of economic growth, had a steeper deceleration: an average annual rate of 9 percent in 1973-1976 quadrennium, 7 percent in 1977-1980 quadrennium, and negative 1 percent in 1981-1984 quadrennium. In fact, 1984 record was a steep decline of negative 10.56 percent.

The Regional Inequality in the Philippines

(1) After over a decade of growth center experience, regional shares of national output have remained inequitable. The structural shares have remained relatively invariant all throughout--significant shifts in shares never took place. It is easy to see that economic resources have remained concentrated in Metro Manila after more than a decade of growth center experience.

(2) The sharing picture is severely unbalanced with Metro Manila taking the lion's share (one-third of the total GDP). Southern Tagalog and Central Luzon, the next top contributors to national output, are next door neighbors to industrial Metro Manila. Providing contrast to this economic landscape in Luzon are the adjacent areas of Ilocos, Bicol, and Cagayan Valley which are the country's three laggards.

(3) The top regional economic leaders of Metro Manila, Southern Tagalog and Central Luzon, are also the top industrial regions. The top agricultural regions are Southern Tagalog, Western Visayas, and Southern Mindanao. The top contributors to service output are Metro Manila, Southern Tagalog, and Central Visayas.

(4) Based on growth trends alone, there is not much indication that economic development will disperse from the developed regions to the less developed.

The Tertiarization of the National and Regional Economies

(1) Along with the stubborn dispersal of economic resources comes the large concentration of economic resources toward the service sector. From 1973-1984, the service sector has been the largest component of national output.

(2) Although it declined together with the agriculture sector, the decline is too small to considerably change the sharing picture. This sectoral component relatively maintained its large GDP share (38 percent).

(3) The three identified growth centers make for an interesting combination: Metro Manila is basically industrial and service-oriented, Southern Mindanao is basically agricultural, and Central Visayas is basically service-oriented. Metro Cebu's central location in Central Visayas makes for a convenient distribution center of Metro Manila's industrial products and Southern Mindanao's agricultural raw materials. Over a decade of growth center experience has not altered this structural relationship. Central Visayas remains the distribution center of Southern Mindanao's agricultural supply and Metro Manila's industrial products.

(4) While the industry sector held its ground (even in the midst of a growing tertiarization of the world economy) by showing an increase over the years, the increase is relatively small (especially if compared to the industrial performance of low and middle income economies) and tentative to warrant a considerable structural change.

(5) The tertiarization trend is especially manifested in the drift of the labor force toward the service sector. In a basically rural and agricultural population, for the service sector to attract over a third of the labor force and to outpaced both national and other sectoral growth rates must be a sign of a growing tertiarization.

The Externalization of National and Regional Economies

(1) The drift toward the service sector of the Philippine economy cannot be separated from the phenomenon of external dependence. From 1974 to 1984, the balance of trade has been consistently negative, reflecting the orientation of the Philippine economy to foreign commodities.

(2) From a strictly regional viewpoint as gauged from regional trade statistics of port districts, the negative balance of trade indicates dependence on other regional as well as foreign economies. As statistics bear out, this external dependence increases. Overall, inward trade accounted for more than one-half percent of the total regional trade (in which more than one-half percent of the total inward trade consists of import).

Conclusions

In carrying through the research for this study, the writer has presented that the advent of growth center as a regional planning strategy reflects a parallel development in the positivistic social science and a policy stance which itself derived from the theory of unequal development. From the review of related literature and theoretical notes, it was suggested that as a theory of growth its alternative plan is at best an articulation of the functional integration or equilibriation of national and regional economies via the creation of a spatial system that would allow the emergence of mutually beneficial relationships between the urban centers and the rural areas. It was also suggested that such a spatial system became a normative variation to the conventional industrialization thesis by providing the latter a geographic context. The basic idea was that economic growth could be diffused to the underdeveloped areas by selecting points of urban-industrial growth. In this way, the growth center strategy would not only proceed from the notion that a vigorous industrialization process is needed in transforming a traditional agricultural economy into a modern industrialized economy, but also from the notion that the peripheries could only participate in the general process of development to the extent that they are subject to the impact of the growth centers.

The Philippine planning experience under the growth center doctrine attests to that industrial experience. Within the wider

context of the national agro-industrial development plan, the goal of the growth center doctrine is the functional integration of the periphery to a growth-induced industry-led center. After over a decade of growth center experience, however, the Philippine economy has not attained growth and equity nor has it functionally integrated the peripheral regions to designated growth centers. The functional integration did not take place because the designated growth centers failed to generate considerable industrial growth and to counteract the growing tertiarization and externalization of the national and regional economies.

What is apparent is that instead of functionally integrating the peripheries to growth-induced industry-led centers, two of the designated regional growth centers gravitate around the super growth center--Metro Manila. Such a condition has perpetuated regional inequality and encouraged a regional "division of labor." The regional division of labor has been demonstrated by the regional shares to national output. From regional growth centers alone it was found that Metro Manila, taking the lion's share of the national output, has remained basically industrial and service-oriented, Southern Mindanao basically agricultural, and Central Visayas basically service-oriented, an interesting division of labor that has not only maintained the structural shares invariant but also showed the inability of other growth centers to generate a dominant industrial output and to stimulate widespread development after over a decade of growth center experience.

Moreover, while the sectoral analysis reveals an increase in the industrial sector and decrease in agriculture sector and service sector shares to GDP, the change over time is too small to significantly alter the sharing picture. Overall, the service sector retained its largest share of national output. The performance of the service sector in the sectoral output determination is further enhanced by the increasing drift of labor toward the service sector. Based on the regional employment analysis, the service sector outpaced the industry and agriculture sectors both in terms of average sectoral share and growth during the designated time period--a likely indication of the growing tertiarization of national and regional economies.

The failure of the growth center to counteract the growing tertiarization has also encouraged the externalization of national and regional economies. This condition has given rise to external dependence for raw materials and capital goods. Based on the foreign trade profile analysis, the combined national trade deficits for capital and intermediate goods have more or less retained its large share throughout the years of growth center experience. Both import composition goods are essentially for the use of industries. This growing external dependence has not only retarded national growth as indicated by a consistent balance of payment deficits but also shrunk export share. For a basically agricultural economy to be squeezed between stagnating export

earnings and soaring import expenditures is certainly not compatible with the growth center structure goal of export expansion.

The growing externalization has also been reflected on the regional level. As gauged from regional trade statistics, the total regional balance of trade by port districts reveals negative results all throughout the years of growth center experience. The negative balance of trade indicates dependence on foreign economies as well as other regional economies as measured in terms of inward trade versus outward trade and import composition of inward trade.

Aside from its failure to generate considerable industrial growth and widespread development and to counteract the growing tertiarization and externalization of national and regional economies, its consequent bias for urban-industrial development and outward-looking growth policy makes it vulnerable to fluctuations in the industrial world.

Within the context of the growing interdependence of the world economy, the tendency to view our chance for development along the precedent path of an industrialized and outward-looking economy exhibits the great defect of having disregarded our asymmetrical position in the "bargaining table" and weakness of operating based on what has been termed "competitive advantage." In an unequal world economy transnational capital in western development and its present domination of the world economy has destined third world countries such as the Philippines to a dependent peripheral status.

Such a predicament makes the "catching-up" process of industrial development almost impossible.

On the contrary, Philippine regions which are still very much dependent on the agricultural sector are showing more resilience in the present national economic crisis than urban-industrial and service-oriented regions. The relative sensitivity of industrial and service sectors toward domestic and international recessions points to the vulnerability of growth center strategies to fluctuations in the industrial world. The relative resilience of agriculturally-oriented regions may suggest that a sizable number of the agricultural sector (such as those who produce basically for use value and are not totally penetrated by transnational capital) has the capacity to recover in the context of national and international recession.

Furthermore, taken to a mega perspective, is the growth center doctrine workable in a third world setting? If the first world is the center and the third world is the periphery, is the latter being functionally integrated to the former? As things stand, the third world countries such as the Philippines continue to be consumers of expensive industrial goods and suppliers of cheap agricultural products and labor. Perhaps the so-called "international division of labor" runs complementarily with the growth center doctrine that has kept national economies ever tertiarized and externalized.

It must be noted, however, that inasmuch as there is a rightful place for comparative historical studies of development, the writer reiterates that in no way does this study argue for the "writing off" of industrial development patterns. What is implied in this observation, however, is that the growth center approach to regional development in the Philippines must be reexamined as a growth policy. Based on the data, its functional and unequal approach to regional planning can no longer be upheld. Henceforth, regional planning must at the minimum consider both territorial and decentralized forms of regional planning. Efforts toward this type of regional planning have been developed by regional theorists such as John Friedmann and Clyde Weaver.[94] Recognizing the realities of third world development in a transnational hegemony, both authors opted for the recovery of territorial life. Briefly, here are the five assumptions of territorial development:

> First, most of the world's population live at unacceptably low levels of material consumption. Second, most of the world's population are engaged in the production of use values outside the exchange economy. Third, every territorially integrated national community must be able to meet the basic needs of its members or eventually lose its claims of legitimacy. Fourth, the strengthening of territorial power that is implied in a basic approach to development does not exclude the necessity of judiciously using transnational power in meeting national needs. Fifth, the basic needs approach is intended as a general model of development in which production and distribution are treated as facets of the same process of equal development. It is not meant to be an instrument for containing poverty in a context of transnational development.[95]

Suggestions for Further Study

The nature of this study suggests that further study is needed. While the present study deals only with the status of national and regional economies with regard to growth profile, inequality, tertiarization, and externalization, several sections of this research can be used as benchmarks for research such as:

(1) An analysis of the interaction between the three major variables (growth center policy, tertiarization, and externalization) should be carried out to determine the generalizability of the findings.

(2) Methods of analyzing the impact of growth centers to the peripheries should be undertaken to determine the extent of the reliability and validity of the methods of analysis.

(3) Empirical demonstration of the interrelationship between tertiarization and externalization should be pursued to determine the extent of their complementary effects to the national and regional economies.

(4) Analysis of the response of traditional agricultural economy within the context of transnational hegemony should continue, with special attention to agriculture intended for use-value rather than exchange-value.

(5) Study of regional planning which, at the minimum, considers both territorial and decentralized elements of development should be carried out as a possible alternative to the unequal and functional approach of growth cetner doctrine to development.

APPENDIX

REGIONAL BREAKDOWN OF GROSS DOMESTIC PRODUCT

BY SECTORAL SHARE AT CONSTANT PRICES

AND MAP OF PHILIPPINE REGIONAL AND GROWTH CENTERS

Table 17. Gross Domestic Product--Agriculture Sector (%).*

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Philippines	6.15	2.58	4.31	7.98	4.96	4.15	4.51	4.98	3.69	3.13	-2.10	0.81
Luzon												
Metro Manila												
Ilocos	9.32	6.76	-5.84	-2.28	4.87	3.53	14.33	4.86	9.51	11.06	-2.54	1.91
Cagayan Valley	15.31	-8.54	-26.49	6.24	6.20	9.52	6.26	1.50	2.25	-5.42	5.11	-0.11
Central Luzon	12.37	9.80	2.57	2.68	4.18	8.86	2.76	8.52	12.39	4.82	-5.03	0.74
Southern Tagalog	5.83	6.44	14.17	9.62	7.66	6.91	-0.64	2.75	3.87	-0.03	0.16	0.56
Bicol	3.93	5.75	0.45	3.78	8.65	-5.59	4.32	13.36	0.94	-13.89	2.03	0.79
Visayas												
Western Visayas	4.67	7.25	2.60	5.92	-2.30	0.00	4.16	-0.69	3.65	7.59	-6.38	4.61
Central Visayas	6.45	4.55	7.83	11.47	8.76	-10.05	0.58	22.30	2.67	-3.45	2.43	-0.68
Eastern Visayas	6.23	3.03	9.81	0.27	-3.12	2.67	4.66	9.16	3.76	-2.12	-6.72	-0.41
Mindanao												
Western Mindanao	7.37	-5.41	19.39	26.40	12.66	21.00	12.27	12.08	4.74	0.31	0.15	-5.66
Northern Mindanao	4.90	1.99	-9.49	14.51	3.44	3.27	1.40	1.56	-0.53	18.41	-13.69	0.74
Southern Mindanao	9.62	-3.85	19.85	12.79	5.69	1.29	5.92	-0.97	0.78	-5.70	5.15	0.24
Central Mindanao	-12.27	-5.85	9.76	3.94	9.62	16.67	8.81	1.82	0.21	34.43	-3.46	4.32

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

Table 18. Gross Domestic Product--Industry Sector (%).*

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Philippines	12.41	5.64	8.70	10.38	8.41	6.11	7.99	4.68	4.46	2.16	0.66	-10.56
Luzon												
Metro Manila	18.95	4.48	5.18	6.81	9.64	5.09	4.90	5.73	4.65	2.45	1.80	-9.75
Ilocos	12.92	-7.05	11.64	-0.91	18.60	-3.98	7.36	7.48	6.38	-8.51	-0.60	-8.39
Cagayan Valley	18.07	14.29	26.34	68.55	7.76	4.86	25.42	-0.59	5.65	1.13	-20.61	-39.00
Central Luzon	5.25	7.54	5.23	18.25	3.77	3.55	10.04	3.63	13.34	1.56	-0.22	-10.00
Southern Tagalog	4.05	4.56	15.54	15.20	7.52	8.30	7.00	6.80	0.83	2.53	2.31	-9.05
Bicol	-8.67	9.49	30.64	63.27	6.78	5.08	5.56	6.86	5.78	0.40	-8.87	-23.45
Visayas												
Western Visayas	13.29	7.79	6.38	4.29	3.64	4.59	10.78	2.25	7.80	4.75	0.80	-15.56
Central Visayas	8.90	10.92	8.68	10.27	11.09	9.98	5.93	3.51	6.39	-0.81	-0.98	-6.77
Eastern Visayas	17.18	-18.24	19.12	-6.69	-1.79	14.96	6.35	-5.37	2.21	10.49	-10.06	-29.66
Mindanao												
Western Mindanao	1.27	8.81	4.62	13.26	6.34	6.88	26.18	1.36	7.38	2.50	-0.91	-16.86
Northern Mindanao	1.16	10.09	21.88	15.90	12.68	8.25	39.18	-0.17	-6.18	-3.15	1.36	-8.09
Southern Mindanao	6.19	19.85	13.37	13.54	6.14	10.79	12.55	2.32	-0.26	7.17	1.55	-8.38
Central Mindanao	-5.66	17.98	22.86	2.63	7.51	15.67	6.77	1.38	-3.40	9.58	3.98	-7.96

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

Table 19. Gross Domestic Product--Service Sector (%).*

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Philippines	6.98	6.19	6.33	5.59	4.93	5.88	5.83	6.15	3.40	3.46	3.59	-2.48
Luzon												
Metro Manila	8.62	8.10	8.29	4.50	4.92	5.52	8.96	7.06	4.21	4.02	3.74	-3.63
Ilocos	6.23	2.78	4.55	5.18	2.46	7.12	2.72	4.60	2.98	2.75	5.36	-1.07
Cagayan Valley	10.73	3.29	7.04	3.76	4.68	4.18	7.33	1.55	2.66	1.73	2.31	-0.2[illegible]
Central Luzon	5.70	4.63	4.42	7.73	3.15	5.15	4.34	5.84	3.32	3.88	2.39	-3.78
Southern Tagalog	2.43	3.36	6.26	6.49	4.15	8.19	2.11	6.82	2.52	3.64	5.10	0.93
Bicol	7.89	2.73	8.94	6.79	3.84	6.82	4.65	5.17	3.24	2.10	5.50	-0.09
Visayas												
Western Visayas	2.46	3.89	2.26	5.27	4.57	3.96	3.42	6.18	2.39	3.70	2.74	-4.35
Central Visayas	7.66	5.19	3.57	7.16	3.89	4.97	6.21	5.84	2.59	2.89	2.71	-2.42
Eastern Visayas	11.94	2.17	4.60	3.72	2.12	6.39	1.80	5.75	3.91	2.95	3.91	-1.88
Mindanao												
Western Mindanao	7.49	10.86	6.43	5.63	7.02	6.44	4.11	5.15	3.75	1.71	3.36	-4.68
Northern Mindanao	8.64	14.22	11.29	7.11	14.87	10.32	4.96	4.72	2.92	3.09	2.69	-2.39
Southern Mindanao	7.93	5.11	2.43	6.71	6.56	4.12	3.96	4.68	2.76	3.00	2.79	-0.42
Central Mindanao	9.01	10.19	8.55	4.50	4.31	6.34	2.08	6.25	3.32	1.73	3.41	-0.12

Source of basic data: National Economic Development Authority, Philippines.

*GDP in millions of pesos at constant prices.

Table 20. Gross Domestic Product by Industrial Origin--Industrial Sector*

Industry	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Industrial Sector	19,586	20,710	22,690	24,904	27,554	29,598	32,343	33,471	34,963	35,916
a. Mining & quarrying	1,400	1,403	1,445	1,491	1,742	1,809	2,134	2,236	2,175	2,143
b. Manufacturing	15,252	15,981	16,537	17,481	19,532	21,108	22,239	23,175	23,959	24,535
c. Construction	2,433	2,745	4,101	5,254	5,568	5,913	7,121	7,139	7,830	8,177
d. Electricity, gas, & water	501	581	607	678	712	768	849	921	999	1,061

Source: National Accounts Staff, Statistical Coordination Office, National Economic and Development Authority.

*In millions of pesos at constant prices.

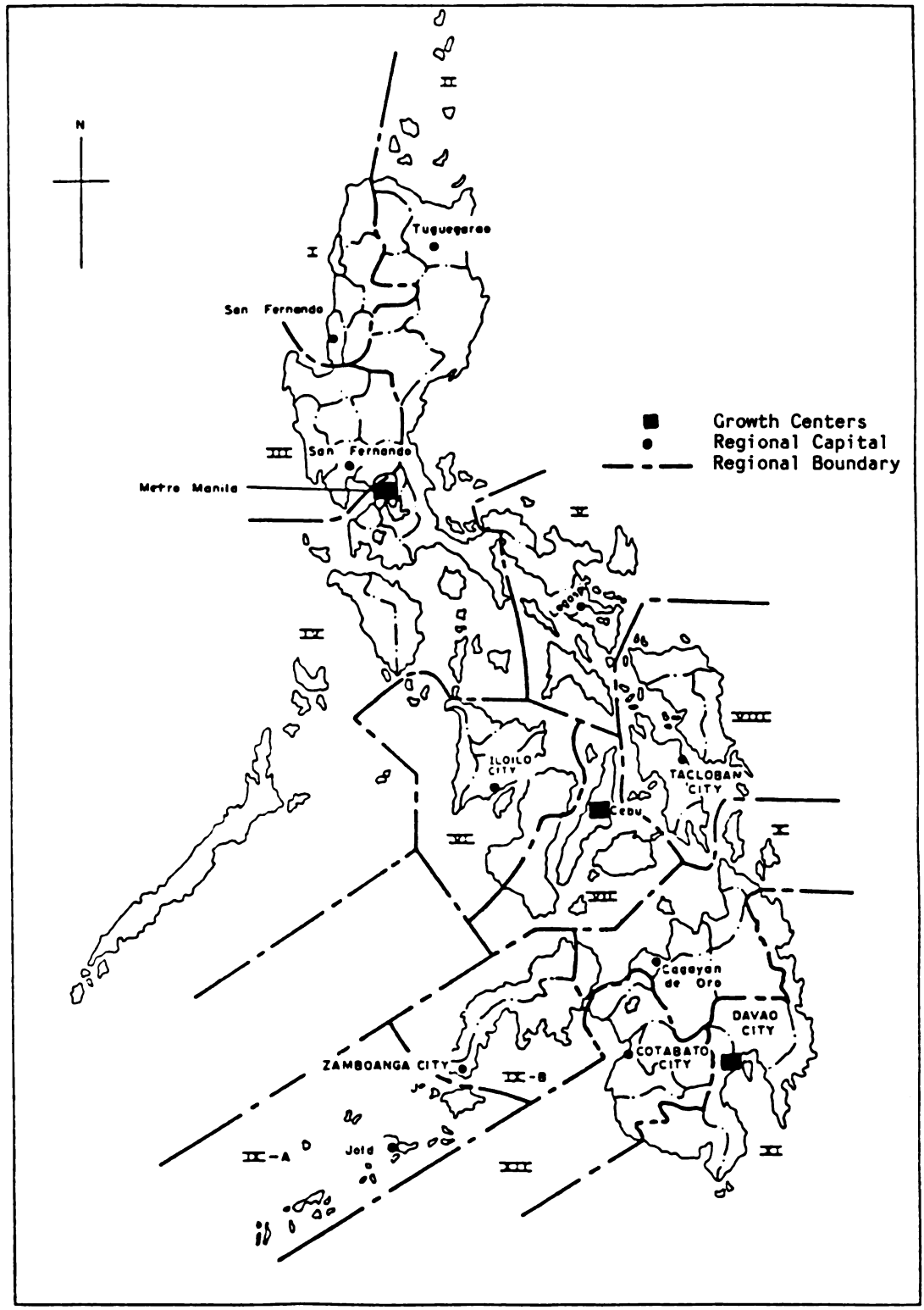


Figure 8. Philippine Regional and Growth Centers.

NOTES

NOTES

[1]The term regional has been used in many different ways. In this paper, the term refers to the thirteen regions comprising the Philippine Island.

[2]Harry W. Richardson, Regional Growth Theory (New York: Halsted Press, 1973)k, pp. 138-139.

[3]Albert O. Hirschman, The Strategy of Economic Development (New Haven: Yale University Press, 1958), p. 183.

[4]Gunnar Myrdal, Rich Lands and Poor: The Road to World Prosperity (New Haven: Yale University Press, 1959), p. 27.

[5]John Friedmann and Clyde Weaver, Territory and Function (London: Edward Arnold Publishers, Ltd., 1979), p. 174.

[6]Department of Public Works, Physical Perspective Plan for the Philippines (Manila: Government of the Philippines, March 1976), p. 15.

[7]Department of Agrarian Reform and University of the Philippines Institute of Planning, Study of Growth Centers and Areas for Future Urban Expansion in Land Reform Areas (Diliman, Quezon City: Government of the Philippines, February 1974).

[8]Francois Perroux, "Economic Space: Theory and Applications," Quarterly Journal of Economics 64 (February 1950):94.

[9]Ibid., p. 95.

[10]Mark Blaug, "A Case of the Emperor's Clothes: Perroux's Theory of Economic Domination," Kyklos 4 ( ):552.

[11]Ibid., p. 560.

[12]Ibid., p. 563.

[13]Niles M. Hansen, "Development Theory in a Regional Context," Kyklos 3 (1967):725.

[14]Walter Christaller, Central Places in Southern Germany, trans. Carlisle W. Baskin (Englewood Cliffs, New Jersey: Prentice-Hall, 1966; original German edition 1933), pp. 16-17.

[15]W. Arthur Lewis, "Economic Development with Unlimited Supplies of Labor," Manchester School of Economics and Social Studies 22 (May 1954):146-147.

[16]Ibid., pp. 151-152.

[17]Douglass C. North, "Location Theory and Regional Economic Growth," Journal of Political Economy 63 (1955):258.

[18]Myrdal, p. 13.

[19]Ibid., p. 27.

[20]Ibid., p. 32.

[21]Hirschman, pp. 187-188.

[22]John C. H. Fei and Gustav Ranis, Development of the Labor Surplus Economy (Homewood, Illinois: Richard D. Irwin, Inc., 1964), p. 3.

[23]Ibid.

[24]John Friedmann, "A Generalized Theory of Polarized Development," in Growth Centers in Regional Economic Development, ed. N. M. Hansen (New York: The Free Press, 1972), p. 93.

[25]Ibid., p. 100.

[26]Harry W. Richardson, Regional Economics (New York: Praeger Publishers, 1969), pp. 424-425.

[27]Ibid., p. 426.

[28]J. R. Lasuen, "On Growth Poles," Urban Studies 6 (June 1969):152.

[29]Ibid., p. 151.

[30]D. F. Darwent, "Growth Poles and Growth Centers in Regional Planning--A Review," Environment and Planning 1 (1969):25.

[31]Ibid., p. 26.

[32]Ibid.

[33]Walter Isard, Ecologic-Economic Analysis for Regional Development (New York: The Free Press, 1972), p. 37.

[34]Ibid., p. 45.

[35]Douglas S. Paauw and John C. H. Fei, The Transition in Open Dualistic Economies (New Haven: Yale University Press, 1973), p. 17.

[36]Ibid., pp. 32-33.

[37]Benjamin Higgins, "Growth Pole Policy in Canada," in Growth Centers in Regional Economic Development, ed. N. M. Hansen (New York: The Free Press, 1972), p. 215.

[38]Ibid., pp. 227-228.

[39]The Appalachian region extends from northeastern Mississippi to southern New York. Appalachia is located between two urban and industrialized regions--the Atlantic and the Midwest.

[40]Ibid., p. 271.

[41]Ibid., p. 273.

[42]Appalachian Regional Commission, State and Regional Plans in Appalachia (Washington, D. C.: The U. S. Government, 1968), p. 12. (The Commission is hereafter referred to as ARC.)

[43]H. W. Richardson, Regional Development Policy in Spain," Urban Studies 8 (February 1971):45.

[44]Ibid., p. 51.

[45]United Nations Centre for Regional Development, The Growth Pole Approach to Regional Development: A Case Study of Mizushima Industrial Complex, Japan (Nagoya, Japan: UNCRD, 1975), p. 28.

[46]Ibid., p. 101.

[47]Irving Zeitlin, Ideology and the Development of Sociological Theory (Englewood Cliffs, New Jersey: Prentice-Hall, 1981), p. 75.

[48]Eric Bredo and Walter Feinberg, Knowledge and Values in Social and Educational Research (Philadelphia, Temple University Press, 1982), p. 14.

[49]Dennis Rondinelli, Urban and Regional Development Planning (Ithaca: Cornell University Press, 1975), p. 24.

[50]Ibid., p. 25.

[51]Mel Scott, American City Planning (Berkeley, California: University of California Press, 1969), p. 47.

[52]Charles Moore, Daniel H. Burnham: Architect, Planner of Cities, vol. 1 Boston: Houghton Mifflin Company, 1921), pp. 130-131.

[53]Arthur Hillman and Robert J. Casey, Tomorrow's Chicago (Chicago: The Univeristy of Chicago Press, 1953), p. 44.

[54]Scott, p. 108.

[55]Ibid., p. 111.

[56]Ibid., p. 120.

[57]Ibid., p. 123.

[58]Ibid., p. 121.

[59]Rondinelli, p. 27.

[60]Andreas Faludi, Planning Theory (New York: Pergamon Press, 1973), p. 25.

[61]Melville Branch, Comprehensive Planning: General Theory and Principles (California: Palisades Publishers, 1983), p. 3.

[62]Ibid., p. 2.

[63]Friedmann and Weaver, p. 57.

[64]R. E. Park, E. W. Burgess, and R. D. McKenzie, The City (Chicago: University of Chicago Press, 1925), pp. 4-5.

[65]Friedmann and Weaver, p. 61.

[66]Ibid., pp. 61-62.

[67]Charles M. Haar, "The Master Plan: An Impermanent Constitution," Law and Contemporary Problems 20 (Summer 1955):357-419.

[68]S. C. Patnaik, Economics of Regional Development Planning in Third World Countries (New Jersey: Humanities Press, Inc., 1983), p. 3.

[69]Blaug, p. 563.

[70]Ibid., pp. 554-555.

[71]Lasuen, pp. 152-153.

[72]Richardson, Regional Economics, pp. 427-428.

[73]Department of Agrarian Reform and University of the Philippines Institute of Planning, p. 132.

[74]Industrial dispersal policy is based on Investment Incentives Laws, namely: R.A. 5186, September 16, 1967; R.A. 5455, August 22, 1968; R.A. 6135, August 31, 1970, and P.D. No. 92, January 6, 1973.

[75]Department of Agrarian Reform and University of the Philippines Institute of Planning. p. 156.

[76]Ibid., p. 139.

[77]National Economic and Development Authority, The Reorganization of the Executive Branch of the Philippine Governemnt (Manila: Lawin Publishing House, Inc., 1973), p. 87.

[78]Appalachian Regional Commission, p. 270.

[79]Ibid.

[80]National Economic and Development Authority, Long-Term Philippine Development Plan Up To the Year 2000 (Manila: Government of the Philippines, September 1977), p. 33.

[81]Ibid., p. 34.

[82]National Economic Development Authority, Philippine Development, vol. x, No. 10 (Manila: Government of the Philippines, March 1983), p. 33.

[83]Department of Public Works, p. 15.

[84]This growth center strategy consists of a higher hierarchy of growth centers complementing the existing regional, primary, and secondary sectors in twelve regions.

[85]For other opinions toward this critique, see G. Myrdal, Rich Lands and Poor: The Road to World Prosperity (New Haven: Yale University Press, 1959); M. Lipton, Why Poor People Stay Poor: Urban Bias in World Development (Cambridge, Massachusetts: Harvard University Press, 1977); and J. Friedmann and C. Weaver, Territory and Function (London: Edward Arnold Publishers Ltd., 1979).

[86]The key informants include one regional director, two division heads, and two project leaders.

[87]In July 1950, the United Nations Economic and Social Council, on the advice of its Statistical Commission, recommended that Governments compile trade-by-commodity statistics according to the original SITC 9/ in order to have available data in internationally comparable categories suitable for the economic analysis of trade. The original SITC had been prepared by the United Nations Secretariat with the assistance of expert consultants and in cooperation with Member Governments and interested international organizations. In May 1960, the Statistical Commission approved a revision, similarly prepared, of the original SITC, known as the SITC, Revised, designed to take account of the changes in the pattern of trade since 1950 and to simplify the relation between the SITC and internationally agreed customs tariff nomenclatures. The SITC, Revised, is in fact a rearrangement into statistical order of the items of the 1955 Tariff Nomenclature (CCCN) of the Customs Co-operation Council.

[88]Fei and Ranis, p. 3.

[89]North, p. 258.

[90]National Economic and Development Authority, Philippine Statistical Yearbook, 1983 (Manila: NEDA, 1984), pp. 488-489.

[91]Ibid.

[92]For a more detailed discussion on territorial planning, see J. Friedmann and C. Weaver, Territory and Function: The Evolution of Regional Planning (London: Edward Arnold Publishers Ltd., 1979); C. Weaver, Regional Development and the Local Community: Planning Politics and Social Context (New York: John Wiley and Sons, Ltd., 1984); J. Friedmann and M. Douglass, Agropolitan Development: Towards a New Strategy for Regional Development in Asia (Nagoya, Japan: United Nations Centre for Regional Development, 1975); J. Vanek (ed.), Self-Management: Economic Liberation of Man (London: Penguin Books, 1977); and International Labour Office, Meeting Basic Needs: Strategies for Eradicating Mass Poverty and Unemployment (Geneva: ILO, 1977).

[93]Generally, the recovery of territorial life refers to the assertion of the territorial interest through the basic conditions of self-reliance and self-determination. The former is a way to escape the growing functional integration of world economy under transnational enterprise. The latter means the power to determine the ultimate uses and disposition of natural resources within the context of a defined territorial community.

[94]Friedmann and Weaver, p. 190.

[95]Ibid.

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