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Economic Dependence, Overurbanization, and Economic Growth: A Study of Less Developed Countries*

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Excessively large and rapidly growing urban populations characterize social structural change in less-developed countries. This is in contrast to the developmental patterns which accompanied structural transformation in the presently rich, industrialized countries of the world. Many less-developed countries are thus said to be "overurbanized." In this paper, quantitative cross-national data are brought to bear on the hypothesis that overurbanization has been fueled by the economic dependence to which these countries are, to varying degrees, subject. The hypothesis that the degree of overurbanization and changes therein inhibit economic growth is also examined. But the overurbanization question is often framed as a matter of the relative distribution of the labor force into service and manufacturing occupations. We herefore examine parallel hypotheses which define overurbanization in terms of the urban labor distribution. Constraints on the availability of labor force data, however, relegate these findings to a subordinate role.

Panel regression analysis provides support for the proposition that dependence upon foreign capital leads to overurbanization (defined as either the urban/development relationship or in terms of labor structure imbalance). Furthermore, relative increases in overurbanization are consistently accompanied by relative declines in per capita economic growth, though the effects of higher levels of overurbanization do not appear to impede economic growth.

Excessively large and rapidly growing urban populations and excessive employment in service occupations (relative to manufacturing occupations) are among the tendencies most often said to peculiarly characterize social structural change in less-developed countries. These patterns contrast with the developmental patterns which accompanied economic transition in the presently rich, industrialized countries of the world. Both of these conditions are frequently regarded as dimensions of "overurbanization." Many have argued that this structural condition impedes economic growth in less-developed countries (LDCs). More recently, others have argued that this imbalance is likely to accompany peripheral regions' economic dependence on foreign capitol from the core regions of the world economy.

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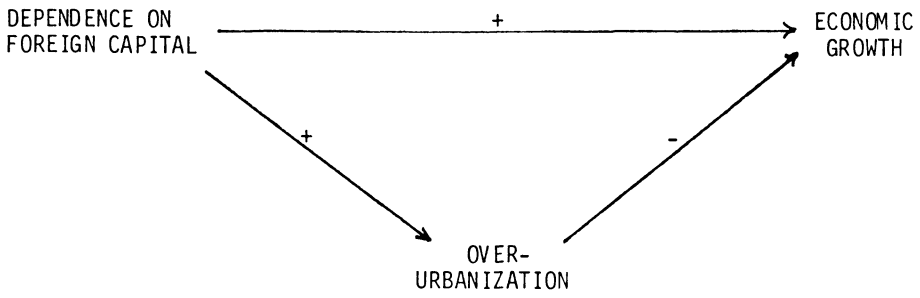
In this paper we will attempt to answer two specific questions. First, is overurbanization fueled by the economic dependence to which less-developed countries are subject to varying degrees? Second, does overurbanization—conceived of as either the relative size of the urban population or the labor distribution—appear to present itself as a barrier to economic growth? If economic dependence is linked to these imbalances and if overurbanization is linked to economic stagnation, it is quite possible that overurbanization mediates some of the previously discovered negative effects of dependence upon economic growth. The model suggested is shown in Figure 1.

Figure 1. Theoretical Relationships among Economic Dependence, Overurbanization, and Economic Growth.



The underlying conceptual notion of overurbanization is evaluative, and it has been criticized as such (Sovani, 1964). It is used to characterize the fact that many LDCs have larger urban populations than can be effectively employed—or supported—by the structure of the economy or the level of development. Implied or explicit operational definitions of overurbanization have included: the ratio of the percentage of a country's total population which lives in urban areas to some measure of level of development (Hibbs, 1973); the ratio of percent urban to secondary employment (Kentor, 1981; Bairoch, 1975); the ratio of urban population to secondary and tertiary employment (Moir, 1975); the ratio of the rate of urbanization, usually through rural-urban migration, to the rate of economic development (Wellisz, 1971); and the ratio of service to manufacturing, or tertiary to secondary employment.

Statistical comparisons have been made between the degree of overurbanization in LDCs today and more-developed countries (MDCs) at earlier times, and they indicate a disparity between the two experiences. General descriptive statements about LDCs mask important intercountry differences. Nevertheless, as many have pointed out that, overall, LDCs today have a much larger proportion of their populations in cities than did the presently developed countries at similar levels of economic development (cf., Ward, 1969; Hawley, 1971:272; Bairoch, 1975; U.N., 1976). Implied by the importance attached to such observations is that there is a symbiotic relationship between urbanization and level of economic development which has a balancing point at which developmental efforts are facilitated and developmental problems are minimized. It has been argued that urbanization is necessary for economic development because it re-

duces the "friction of space" (Davis and Golden, 1956), allowing the juxtaposition of complementary functions required by the industrialization process (Higgins, 1967; Jakobsen and Prakash, 1971:21–22). On the other hand, it has been maintained that "too much" urbanization may present obstacles to industrial development if it comes too soon and too quickly (Higgins, 1967).

The description of less-developed countries is similar when we focus on "imbalances" in the urban labor distribution, rather than on the relative size of the urban population itself. Three broad distinctions are commonly made between different types of economic activities. *Primary* occupations are mainly agricultural. The *secondary* labor sector includes occupations in manufacturing, construction, mining, and utilities, but it is primarily thought of as the manufacturing sector. The *tertiary* sector includes jobs in commerce and transportation/communications, as well as government, commercial, and personal services. The tertiary is often characterized as the service sector because many of the jobs in it "service" activities of the other two sectors.

The most striking feature of the labor structure in the Third World is that the tertiary and secondary sectors are very small, with most workers being employed in the agriculture sector. More surprising to most observers, however, is the large size of the tertiary sector, relative to the level of industrialization that has occurred. This structural feature of LDCs has been variously termed "hypertrophy of the tertiary" (Amin, 1976), "overurbanization," and the "pseudo-tertiary" (Germani, 1973). The last term is used to emphasize the contention that the tertiary sector is largely composed of marginally employed or underemployed workers, who seem to abound in most large cities of the Third World—the operators of automatic elevators, the vendors of single sticks of chewing gum and of single cigarettes, car watchers, and so on. Again, these generalizations belie striking differences between Third World countries in the size of the nonagricultural labor force and its demographic composition, particularly with respect to the extent to which women are employed in nonagricultural wage labor (e.g., Boserup, 1970; Youssef, 1976).

The standard against which these features of LDCs' occupational structure are compared is the pattern of labor composition which historically accompanied economic expansion in the early industrial countries. Jakobson and Prakash (1971:24), summarizing Jean Fourastié's thesis, argue that under "normal conditions" (i.e., those based on the experiences of the early industrializers) during the "take-off" stage of economic growth, employment in the secondary sector will rise to around 35 percent, the tertiary will rise more slowly to a lower level, and employment in the primary sector will decrease. During the "expansion" stage, secondary employment peaks and begins to decrease, as labor-saving technology is developed; primary employment decreases to a minimum, stable level of around 10 percent; and the relative size of the tertiary sector continues to increase, exceeding the employment level of the secondary sector. Ultimately, secondary employment levels off, and tertiary employment stabilizes at a relatively high level, providing as much employment as the other two sectors combined. However, these patterns rarely characterize what has occurred in LDCs.

The descriptive data presented in Table 1 show that the ratio of tertiary to secondary workers in MDC's was about 1.00 (equal employment in the two sectors) as recently as 1950. In 1850 the ratio was only .68, indicating that there

were about seven tertiary workers for every 10 secondary workers in MDCs. In contrast, the tertiary sector in LDCs has been substantially larger than the secondary labor force since as long ago as 1900. During this time, there were over 12 tertiary workers for every 10 secondary workers. The ratio rose to 1.7 in 1970. More detailed data describing the labor force distribution in subdivisions of the secondary and tertiary sectors allow us to compare the ratio of workers in services to workers in manufacturing for 1960 and 1970. This is more true to the underlying overurbanization concept, but data coverage is not nearly as complete. These data indicate that, in 1960, LDCs had about 13 workers in service occupations for every 10 in manufacturing. At the same time, in MDCs, there were only eight workers in services for every 10 in manufacturing. By 1970, the ratio had increased to 1.5 in LDCs, compared to .94 in MDCs. Observations such as these raise serious doubts about the likelihood that the patterns of change in occupational structure which accompanied development in the early industrial countries will be repeated in LDCs.

The question has been raised regarding the significance of comparing levels of overurbanization in LDCs today to the pattern followed by more-developed countries. Among the criticisms of the concept are, first, that there is no *a priori* reason to expect that the developmental pattern of the West is an appropriate model for the less-developed nations today (Sovani, 1964). It would be equally appropriate to argue that Western nations are "underurbanized," compared to LDCs, Sovani points out. Yet, the notion persists that "overurbanization" hinders development. Even Sovani, who Bose argues "has effectively demolished the 'overurbanization' thesis" (1971:99), admits that there are several possible research questions that could be pursued regarding the relationship between urbanization and economic growth (Sovani, 1964:1213). On view of the coexistence of rapid urbanization and economic stagnation in many Third World countries, it seems reasonable to ask whether the two are causally related. Hence, regardless of any implicit comparison to the presently developed countries, one might justifiably ask whether countries that are more "overurbanized" (implying a continuum, not a criterion) are not also less successful at economic development.

Table 1. Tertiary/Secondary Ratios for MDCs and LDCs 1850–1970 (Part A), and Service/Manufacturing Ratios for MDCs and LDCs in 1960 and 1970 (Part B).*

A. Tertiary/Secondary Ratios

	1850	1880	1900	1920	1930	1950	1960	1970
MDCs	.68	.87	.81	.92	1.09	1.05	1.10	1.20
LDCs			1.25	1.26	1.33	1.68	1.61	1.70

B. Services/Manufacturing Ratios, 1960 and 1970

	1960	1970
MDCs	.81	.94
LDCs	1.26	1.51

*Adapted from Lunday and Timberlake (forthcoming), who, in turn, rely upon data presented by Bairoch and Limbor (1968), as well as ILO data.

The suspicion that too much urbanization inhibits economic development when it occurs too early in the developmental history of a country has been propagated by students of development in all global regions. Overurbanization, primacy, and optimal city size are often discussed as one problem. For example, Ward (1969), after showing that less-developed countries are overurbanized, suggested part of a solution would involve urban planning aimed at producing decentralized urban growth in various regional growth centers chosen on the basis of their ability to satisfy certain functions. The idea that a solution to overurbanization will involve planning in rural, as well as urban, areas is also found in the literature. Gugler (1982) is among the most recent of many observers who have pointed out that increased investment in rural, rather than urban, areas would probably benefit developmental efforts and decrease the degree of overurbanization (c.f., Wellisz, 1971; Sovani, 1964; Firebaugh, 1979). Bairoch (1982) focuses on the need to constrain population growth in the largest cities. Similarly, Wellisz, in discussing overurbanization in Asia, suggests that optimal city size might be a useful approach to the phenomenon. But he clearly argues that unwieldy urban populations—however defined—will bog down development: "Overurbanization, in short, stands for a 'perverse' stream of migration, sapping the economic strength of the hinterland without correspondingly large benefits to urban production. Instead of being a sign of development, overurbanization is a sign of economic illness" (Wellisz, 1971:44). Lander and Funes (1975:333) assert that overurbanization is supportive of the "dualism" of Latin American countries in general, particularly Venezuela, and that, together, they will limit the effectiveness of developmental efforts. Portes and Walton (1976: 169–78) submit that rapid, unbalanced modernization is both a result of economic stagnation and a condition supporting stagnation. "Thus, the solution lies in checking the uncontrolled growth of a few metropolitan centers and concentrating on efficient agricultural production and the development of alternative industrial poles of growth.

The distinction between two primary dimensions of overurbanization is clear in the literature we have reviewed so far. One dimension emphasizes the size and growth of the proportion of a country's population living in cities, relative to the level and growth in the level of economic development of the country. The second dimension suggests that the balance of service to manufacturing occupations is crucial. In the remainder of the paper we will occasionally distinguish between these two dimensions.

Overurbanization and Marginality

On the whole, the research mentioned above is not tremendously theoretical. Generalizations suggested by the literature mainly consist of variations on the assumptions that urbanization and rapid growth of the tertiary sector are, in healthy economies, concomitants of the growth of modern industry. Increases in urbanization or tertiary employment in the absence of economic growth or a growing secondary sector are seen as pathological and are used to explain the apparent "marginality" of the large numbers of urban poor who are observed subsisting in the slums and squatter settlements of Third World cities. The marginality argument often focuses on the labor force imbalance dimension of over-

urbanization. It is usually claimed that workers are unemployed or underemployed in numerous "informal" sector activities. Rapid urban population growth (through immigration and natural increase) and economic stagnation are seen as the immediate conditions creating this imbalance. Overurbanization, itself, in turn, serves as an impediment to further economic growth, in part because of the social welfare/social control burdens that it places upon the state. Countries most in need of domestic investments for development are thus drained of a significant portion of the meager economic surpluses which are generated.

These views, oversimplified here, have been criticized on a number of points. There are at least two general objections to the proposition that the "overurbanized" portion of the urban population in LDCs is "marginal." First is criticism of the assumption that work in the tertiary or informal sector—the occupations prevalent among residents of slums and squatter settlements—are dead-end jobs which do nothing but ensure the continued poverty of the people who hold them. Such criticisms usually have been founded on surveys of individuals in Third World cities or on in-depth case studies by participant-observers of communities within a city (e.g., Peattie, 1968; Perlman, 1976). Together, these studies have shown that the move into the city and subsequent employment in these so-called "marginal" jobs often represent an economic improvement for many individuals. That is, service employment, and even informal sector employment, may represent upward social mobility for people moving into these occupations. Furthermore, it has been shown that even for those already employed in these occupations, there is substantial upward mobility within the sector, sometimes almost equal to that within the secondary sector.

These studies are important in indicating the need to distinguish between the significance of a given structural phenomenon for microsocial processes, as opposed to macroprocesses. It is the latter with which we are dealing in the present effort. It is not at all contradictory to note that, on one hand, tertiary or informal occupations are a route to upward mobility for individuals within countries and, on the other hand, maintain that the large relative size of this sector serves to inhibit overall economic growth. It is the overall shape of the occupational structure which constrains the overall amount of mobility (Boudon, 1973). Comparative status-attainment studies usually control for shape of the occupational structure when seeking to determine the amount of "pure mobility" which exists in one system, compared to another. That is, mobility due to factors other than shifts in the relative numbers of positions at different levels of the status hierarchy is examined in these studies. However, there is a growing body of evidence that the shape of the structure and changes therein actually account for most of the overall mobilty (e.g., Hope, 1982). This is similar to the point, made by Gugler (1982), that there is a paradox regarding migration from rural to urban areas in Third World countries: it is rational for the individual migrant, but it is clearly irrational for the economy as a whole. His resolution of the paradox is to suggest that rural-urban migration (presumably resulting in more informal sector or service sector employment) "has a redistributive effect" (Gugler, 1982:186), with respect to the vast rural-urban differences in employment opportunities, wage levels, etc. Some individuals stand to gain, but the economy, as a whole, does not benefit.

From our point of view, it is extremely important to understand the structural

limitations placed on individual mobility. This is not to deny that Third World working-class people and peasants are remarkably creative in their struggle to improve their condition. For some, obtaining employment in the overgrown service sector or informal sector may represent success in this regard. Instead, our emphasis assumes the importance attached to *structural* constraints on mobility. When economic growth is slower in one country than in another, it is likely that the number of mobility "success stories" will be correspondingly fewer (but by no means absent).

A second criticism of much of the early writing on overurbanization and marginality is based on a steadily growing body of research which shows that the problems of urbanization and underemployment in Third World countries are gender-specific, invariably to the disadvantage of women (e.g., Boserup, 1970; Channey and Schmink, 1976). In addition, there are tremendous regional differences in the extent to which women are employed in nonagricultural occupations (Boserup, 1970; Youssef, 1974), and when they are employed in these areas, it is disproportionately in "reproductive" labor. Recent theorizing seems to suggest that the interaction of capitalist penetration with culturally specific precapitalist modes of production (including sex-based divisions of labor) accounts for much of the regional variation in this regard (cf., Beneria and Sen, 1981). However, whether the functions of a given labor sector (e.g., the service sector) will vary with its sex composition is open to question, and, in any case, it is a matter much beyond the scope of the present effort.

A third criticism of the view that the urban poor in the Third World are "marginal" involves a structural argument that will move us toward consideration of the structure of relations in the larger world economy. Portes (1981) articulated the position that the informal sector performs a crucial role for the world economy in that it functions to subsidize reproduction of the formal sector labor force within LDCs. This helps to explain why wages are lower in the periphery than in the core, even when productivity is held constant. This process is viewed as an important mechanism through which core institutions, such as multinational corporations, exploit Third World populations. This argument leads us to consider the recent research which has linked urbanization processes to dependence and position in the world economy.

Dependence and Overurbanization

Dependency theorists argue that the economic penetration of Third World countries (in the form of trade patterns, foreign aid, and investments from enterprises located in the rich, core countries) has profoundly influenced the economic structure of poor countries. Early dependency theorists pointed out that economic interaction between rich and poor countries tended to consist of the exploitation of natural resources and other primary products of the latter by the former (cf., Baran, 1957; Frank, 1972). Ledogar (1975) contended that foreign investment in agriculture stimulates rural-to-urban migration by reducing the amount of land available for peasant agriculture. But tertiary or "pseudo-tertiary" jobs are often the only jobs in town. More recently, industrialization in the periphery has been acknowledged by critics of the early dependency theorists (e.g., Warren, 1973). The response has been to argue that the nature of dependent industriali-

zation is not conducive to the symbiotic dependence among labor force sectors thought to characterize the Western industrialized nations. The manufacturing labor sectors of dependent countries do not support tertiary sectors of the size and nature found in MDCs. First, dependent industrialization does not create a sufficient domestic surplus to sustain the support networks associated with industrialization (Delacroix and Ragin, 1980). Global corporations encourage industrial production for export; consequently, internal markets are not adequately developed. Second, the industrialization which does occur is often based upon the capital-intensive technology of the West (cf., Merhav, 1969). Third, the high-technology tertiary occupations, which are symbiotically linked to depedent industrialization (e.g., research and development), remain located in the rich countries, along with the headquarters of the multinational firms.

With respect to the distribution of the labor force, the net effect of economic and technological dependence on Western countries and multinational corporations is to constrain employment opportunities in the secondary sector, since the producer goods component of this sector is largely supplied through imports (see also Newfarmer and Mueller, 1975; Sunkel, 1973:145). As a consequence of this, a large reserve labor force is left unemployed or underemployed, most often in the overgrown tertiary.

We have already suggested why overurbanization, in general, is likely to contribute to slow economic growth in LDCs, but it may be more compelling to seek to link these effects specifically to imbalances in the labor force structure. If it is accurate to describe the tertiary in many LDCs as composed of car watchers, lottery ticket vendors, and the innumerable others who produce for or "service" the formal economy, then it is quite reasonable to assume that this sector's lack of productivity serves as an impediment to developmental efforts. Certainly, the inhabitants of squatter settlements and other such subsistence communities exist in sufficient numbers that they must be reckoned with when social services, however meager, are distributed. Furthermore, this marginal, largely urban population is likely to be perceived as a potential political threat, and revenues may be used to incorporate some of its members into the national bureaucracy or military, or used to toughen internal security forces in order to more directly counter the threat it represents (cf., Nelson, 1969; Sunkel, 1973). To this extent, potential investment savings which would aid development are spent instead on "the welfare problem (Schweinitz, 1964). On the other hand, some have suggested that tertiary employment may aid in developmental efforts, even in the absence of a secondary sector of the magnitude that existed among the early developers (e.g., Moir, 1976:132).

Recent research has supported the hypotheses that dependence contributes to both dimensions of the overurbanization phenomenon. Evans and Timberlake (1980), using two measures of dependence, showed that the greater the degree of economic penetration of LDCs, the greater the relative growth of the tertiary sector from 1950 to 1960. These findings, however, are qualified by the small number of cases in their analysis, (around 25) and the limited time period. In a much larger sample of LDCs, Kentor (1981) found that dependence had a positive effect on rates of urbanization from 1955 and 1960 to 1970. Furthermore, his more detailed analysis showed that these effects on urbanization seemed to have been mediated through the positive effects of investment depen-

dence on growth of the tertiary labor sector, 1950–70. It was shown that dependence did not affect increases in urbanization by contributing to secondary sector employment. In fact, these effects were negative over the same period of time, indicating that more dependent countries were less successful at generating job opportunities in the secondary sector. When the effects of dependence on overurbanization—measured by the ratio of percent urban to secondary employment—were estimated, Kentor found that greater levels of dependence contributed to increases in overurbanization. Since there is strong evidence that when foreign investments in LDCs are greater, economic growth is limited (cf., Bornschier et al., 1978), it is possible that overurbanization mediates these effects.

The Proposed Analysis

We will restrict our analysis to less-developed countries, since our concern is with extending previous research which has linked dependence to overurbanization and economic stagnation in the periphery among LDCs. We focus on 1965–75. For the present, we distinguish between imbalance in the labor force structure and the narrower conception of overurbanization—the size of the urban population relative to the level of economic development. We are distinguishing them mainly as operationalizations of different dimensions of a single, underlying concept. Hence, we are essentially conducting two parallel tests of each hypothesis, but the limited coverage of the most appropriate labor force data reduces to a very few the number of cases in that part of the analysis. We will therefore emphasize the findings pertaining explicitly to the urbanization dimension of overurbanization. To the extent the results of the parallel tests are mutually supportive, we will be more confident in our findings. First, we will explore the relationship between penetration by foreign capital and overurbanization, hypothesizing: (1) the greater the level of penetration of foreign capital into a given less-developed country, the greater the degree of overurbanization. Second, we will attempt to evaluate the notion that overurbanization inhibits economic growh. Thus, we hypothesize: (2) the greater a country's degree of overurbanization, the less the economic growth.

Data and Measurement

The sample size was limited, by the availability of data, to between 20 and 111 cases, depending upon which measures are being analyzed. In order to maximize the number of cases, we used a liberal criterion for defining less-developed countries, excluding those countries with 1965 per capita GNP in excess of $2,000. This resulted in the inclusion of a few countries of western Europe and elsewhere which would undoubtedly be regarded as semi-peripheral by world system theorists. Investigation of scatter plots of bivariate relationships indicated that these countries do not present themselves as outliers in our analysis.

The indicator of dependence we used was measured in 1967, and, ideally, we would have examined change in the dependent variable from this time point to some later time point. We were able to obtain urbanization data and GNP data for a reasonably large number of countries for 1965 and 1975. We have 69 LDCs in the analysis involving this dimension of overurbanization. The appropriate labor force data are available yearly, but for only a few countries, and we

were unfortunately left with a sample size of only 20 cases in our analyses involving change in the labor force ratio. The time points for the service and manufacturing labor force data are around 1968 and around 1977. Other time points would have been more appropriate from the standpoint of matching the measurement times of the other variables, but this would have resulted in an even smaller sample size. The dependence measure, though, is highly stable over a few years, since it represents the value of total stock of foreign investments which had been accumulating in a country over a long period of time. Thus, the 1967 measurement time is not likely to be problematic. Because of the small sample size, the findings regarding the service/manufacturing labor structure and dependence must be interpreted with caution. We believe they are, nonetheless, instructive insofar as they are consistent with the findings regarding the other dimension of overurbanization.

The measure of development used here is per capita GNP (in constant dollars) obtained from Bornschier and Heintz (1979). We use logarithmic transformations (LGNPPC65 and LGNPPC75) of their 1965 and 1975 measures. The labor force data were obtained from the yearbooks of the International Labor Organization (various years). The secondary sector of the labor force customarily includes the categories of manufacturing, electrical and other utilities, construction, and, often, mining. Tertiary occupations include those in commerce; transportation, storage, and communications; and government and other services. In the initial analysis, we used only the manufacturing subsector of the secondary and the services subsector of the tertiary because they are closer to the underlying conceptualization of the labor force dimension of overurbanization. We constructed ratios of services to manufacturing employment for around 1968 and around 1977, which are used as our measures of labor structure imbalance in most of the analysis (SERMFG68 and SERMFG77). Labor force data which describe the distribution of the labor force into the three broad sectors are available for a much larger number of countries in 1960 and 1970. These are contained in the *Labour Force Estimates and Projections of the International Labour Organization* (1977). (Data at later points are given, but these are estimates which are inappropriate for use in panel regression.) We also refer to the 1960 and 1970 data (111 cases). These data pertain to the distribution of the labor force into the entire tertiary sector and entire secondary sector, rather than just the service and manufacturing subsectors. Thus, we sacrificed conceptual precision for the sake of gaining more cases—many more cases.

One common conceptualization of overurbanization involves simply a comparison of the size of a country's urban population to its level of economic development. The most obvious way to operationalize this concept would be to use the ratio of percent urban to some appropriately scaled measure of per capita GNP. We would be reluctant to use a development measure other than GNP (e.g., energy consumption) because, at least in principle, countries with high levels of per capita productivity could support large urban populations, regardless of the reasons for productivity (manufacturing automobiles or producing oil, for example).

A problem which is likely to occur with such a ratio measure, however, is that of spurious ratio correlation (c.f., Bollen and Ward, 1979). For example, the regression of per capita GNP on an overurbanization ratio such as the one

suggested above would be likely to produce a negative estimate of the effect of overurbanization simply because per capita GNP is common to both terms. Instead of using the ratio, then, we decided to produce a measure of overurbanization which captures the notion of the relationship of percent urban to per capita GNP, but which is statistically independent of the latter. We accomplished this by using the residual difference between percent urban in a given year and a predicted value of percent urban obtained from the regression of percent urban on per capita GNP in the same year. Thus, OVURB65 and OVURB75 measure the level of urbanization relative to the level of GNP per capita, but they are nevertheless orthogonal to LGNPPC65 and LGNPPC75, respectively. The data on urbanization were obtained from the United Nations (1980). Because the analysis is confined to less-developed countries—the countries of the world to which dependency theory and the overurbanization hypotheses apply—there are none of the problems with ceiling effects in the measure of urbanization which would exist if the full range of countries had been included in the analysis.

Investment dependence (PEN1) measures the dollar value of stock of foreign investments in 1967 from the 16 countries with membership in the Development Assistance Council of the Organization for Economic Development and Cooperation (OEDC, 1972). These are essentially the developed western European and North American countries and Japan. We use Bornschier's (1980) transformation of this measure, which controls for the size of the penetrated country's economy.

Panel regression analysis was used to evaluate the hypotheses which we formulated. This involved including a lagged measure of the dependent variable as an independent variable in a regression equation. In this way the estimated effects of the other independent variables on *change* in the dependent variable were obtained without the problems of using simple differences or gain scores to measure change (c.f., Bohrnstedt, 1969). If this model created the possibility of serial correlation of errors, it would result in a more conservative test of our hypotheses because the effect of the lagged dependent variable (overurbanization or LGNPPC65) would be inflated at the expense of the estimated effects of the variables of theoretical interest (Kessler and Greenberg, 1981:87–89).

The Results

First, we examine the hypothesis that dependence leads to higher levels of urbanization, relative to levels of development. The results in column 1 of Table 2 show that the hypothesized positive effects of dependence on overurbanization are corroborated among the 69 LDCs for which we have data on these measures. LGNPPC65 is not included in this equation since this overurbanization measure is constructed so that it is almost completely orthogonal to it. This is described above. The results indicate that the greater the level of dependence, the greater proportion of the population resides in cities, compared to the level of development.

Next, we turn our attention to the hypothesis that investment dependence leads to greater levels of employment in services, relative to manufacturing. Table 2, column 2, shows the estimates of the panel regression of the services/manufacturing ratio on measures of dependence, levels of development, and the

Table 2. Panel Regression of Overurbanization 1975 (OVURB75) or Urban Labor Force Imbalance 1977 (SERMFG77) on Investment Dependence 1976 (PEN1), Per Capita GNP (LGNPPC65), and Lagged Dependent Variable (OVURB65 or SERMFG68).

Dependent Variable		OVURB75	SERMFG77
Independent Variables			
Lagged Dependent Variable	b	.7642***	.3541*
	Beta	.8026	.3386
	t	10.14	1.40
PEN1	b	.3778**	.0986**
	Beta	.1380	.5812
	t	1.74	2.19
LGNPPC65	b		−.4345
	B		−.2173
	t		−.94
Intercept		−2.2248	1.5265
Adjusted R^2		.598	.559
n		69	20

*p ≤ .10
**p ≤ .05)
***p ≤ .01) one-tailed
****p ≤ .001)

b = regression coefficient
Beta = standardized regression coefficient
t = t statistic

earlier imbalance measure among the 20 LDCs for which we have labor force data. (When earlier levels of employment in the two labor sectors which are components of the imbalance measure were included as separate control variables, they had no significant effects on the ratio.) The hypothesis is supported: the greater the dependence of LDCs, the more imbalance occurs in the ratio for the 1968–77 time period. Together, these findings are important because they corroborate the hypothesis that investment dependence exacerbates overurbanization. At the same time, the results regarding the labor structure dimensions of overurbanization corroborate earlier cross-national research which employed somewhat different measures of labor structure imbalance over different periods of time (e.g., Evans and Timberlake, 1980; Kentor, 1981).

Do these structural imbalances inhibit economic growth? First, we estimated the effects of OVURB65 on economic growth. Table 3, column 1, presents the results of the regression of LGNPPC75 on the 1965 level, OVURB65, and PEN1. Contrary to the overurbanization hypothesis, the simple level of overurbanization has no significant effect on economic growth. In this equation PEN1 has an estimated negative effect on economic growth, which others have reported. Before dismissing the hypothesis altogether, we examined the responsiveness of change in GNP levels to *change* in levels of overurbanization.

In Table 3, column 2, we estimate the effects of change in overurbanization from 1965 to 1975 on economic growth by including both OVURB65 and OVURB75 in the equation. Because difference scores are inappropriate measures of change in independent variables, we included instead both the early and later measures of labor structure imbalance in the equation. The estimated effects

Table 3. Panel Regressions of Level of Development 1975 (LGNPPC75) on Levels and Changes in Levels of Overurbanization 1965–75 (OVURB65, OVURB75) or Urban Labor Force Imbalance 1968–77, and Investment Dependence 1967 (PEN1).

Dependent Variables / Independent Variables		1 LGNPPC75	2 LGNPPC75	3 LGNPPC75	4 LGNPPC75
	b	1.1019****	1.1018****	1.0894****	1.0512****
LGNPPC65	B	1.0039	1.0039	1.0424	1.0492
	t	40.18	44.32	18.41	16.81
	b	− .0066***	− .0047**	− .0110**	− .0076
PEN1	B	− .0617	− .0437	− .1215	− .0888
	t	−2.40	−1.84	−2.12	−1.12
	b			.0122	.0662**
SERMFG68	B			.0209	.1261
	t			.39	1.87
	b				− .0622**
SERMFG77	B				− .1238
	t				−1.88
	b	− .0002	.0037**		
OVURB65	B	− .0051	.0933		
	t	− .21	2.88		
	b		− .0051****		
OVURB75	B		− .1301		
	t		−3.81		
Intercept		.1162	− .1274	−.0544	.0436
Adjusted R^2		.964	.970	.956	.969
n		69	69	33	20

*see notes to Table 2.

of the later measure are then net of the effects of the earlier level of overurbanization, and therefore indicate the effects of *change* in this variable. It is the parameter estimate of the later measure (OVURB75) which is interpretable; if change in levels of overurbanization has the hypothesized negative effect, then the parameter estimate of OVURB75 will be negative and statistically significant. This is the case. The results in columns 1 and 2 of Table 3 were corroborated when alternative forms of this overurbanization measure were used (not shown). These included the use of the ratio of urbanization level to per capita GNP, percent change in this ratio, and the use of a residualized overurbanization change score based on the regression of OVURB75 on OVURB65. Since all these operationalizations produced similar findings, we do not think that the reported findings are an artifact of our measurement procedures. The effects of PEN1 are also negative and statistically significant, as predicted by dependency theory and as other research has indicated. These results indicate that, while the structural condition of overurbanization does not impede developmental efforts, countries which experienced relative increases in the degree of overurbanization did experience relatively less economic growth. We must caution that these rela-

tionships may reflect temporary associations. For example, they may be peculiar to the particular cycle of the world economy during the time period under consideration.

Next, we examine the corresponding form of the hypothesis with the labor force dimension of overurbanization. Again, the coverage for the labor force subsector data is very limited. We used them mainly as a check on the results we obtained using the alternative specification of the overurbanization concept. The estimated effect of labor force imbalance on change in levels of development is estimated in an equation which includes LGNPPC65, PEN1, and SERMFG68. Table 3, column 3, shows the results of the regression of LGNPPC75 on these variables. PEN1 has the statistically significant negative effects on development which others have found, but when it is in the equation, the effects of labor structure imbalance are not statistically significant. Poor countries with "excessive" service-to-manufacturing employment ratios do not seem to suffer significant consequences because of it—at least not in terms of economic growth.

The possibility remained, however, that the process of *increasing* imbalance in service to manufacturing employment does inhibit economic growth. Table 3, column 4, presents the results of an equation which estimates the effect of change in the labor structure ratio on economic growth, independently of PEN1. With both SERMFG68 and SERMFG77 in the equation, our hypothesis predicted that the estimated effect of the latter would be negative, and this is, in fact, what we find. Furthermore, the effect of PEN1 is not statistically significant in this equation. Because the sample size is exceedingly small and the cases shift from column 3 to column 4, these findings are presented in their capacity as potentially supportive of the findings in columns 1 and 2. Thus, we tenuously conclude that increasing labor structure imbalance may mediate some of the previously discovered negative effects of dependence. We should emphasize that there is no support for the hypothesis that the *level* of excess service employment to manufacturing employment has the negative effect on economic growth which has been attributed to overurbanization. But change in the ratio does seem to inhibit economic growth, at least in the short run. Substituting change scores for the two level of SERMFG scores produced similar findings, just as it did with the analysis involving the other dimension of overurbanization. Fluctuations over longer periods of time will be important to study in the future.

We also estimate a version of our model with the 1960 and 1970 ILO estimates of tertiary and secondary employment (ILO, 1977). These are less satisfactory than the ILO yearbook data (various years) in that the occupational categories are broader, reporting measures of labor force participation in all tertiary and all secondary occupations, and not just the service and manufacturing subsectors of each. The earlier measurement period also qualifies findings which used the derived overurbanization measures in an equation with PEN1, which was measured only three years prior to the end of the 10-year lag. Furthermore, PEN1, itself, serves as a limiting variable, with respect to data coverage. Nevertheless, we mention that an OLS estimate of the effect of PEN1 on increasing tertiary to secondary employment imbalance produced findings similar to and supportive of those shown in Table 2. We decided to focus instead

on an incomplete version of our model which excludes PEN1. This allowed us to look at a much broader "sample" of less-developed countries (n = 111). Table 4, column 1, reports the regression of LGNPPC70 on its 1960 measure and the ratio of tertiary to secondary employment in 1960 (TERSEC60). The results indicate that LDCs with higher levels of tertiary to secondary employment experience relatively slower economic growth. The equation estimated in column 2 of Table 4 also includes the tertiary/secondary ratio in 1970, thus providing an estimate of the effect of change in the ratio on change in per capita GNP. The results of this indicate, once again, that relative increases in labor structure imbalance are negatively associated with economic growth. Again, we estimated alternative specifications of this model, namely one with the components of the ratio added to the equation implied in column 1 of Table 4 and one in which percent change in the ratio replaced TERSEC60 and TERSEC70 in column 2. The results of these regression estimates did not differ significantly from those reported in Table 4.

The results of the larger sample, 1960–70 labor force estimates analysis, are generally supportive of the smaller sample, 1968–77 estimates, insofar as the negative effects of changing labor structure imbalance on economic growth are reproduced. It is important to point out, however, that we used different operations of labor structure imbalance, and we did not include the measure of invesment dependence in the larger sample procedures. We therefore emphasize the findings pertaining to the urban/development dimension of overurbanization and point out that the findings regarding the labor force dimension are generally consistent. Despite deficiencies of various labor force measures, we thought it was better to use the available data than to ignore them. Our procedures could have produced findings that were inconsistent, undermining the posited hypothe-

Table 4. Panel Regressions of Per Capita GNP (LGNPPC70) on Lagged Dependent Variable (LGNPPC60), and Urban Labor Force Imbalance (TERSEC60 or TERSEC60 and TERSEC70).

Dependent Variables / Independent Variables		LGNPPC70	LGNPPC70
LGNPPC60	b	1.1448****	1.1468****
	Beta	.9592	.9609
	t	41.81	42.93
TERSEC60	b	— .0258**	.0484
	Beta	— .0426	.0800
	t	—1.86	1.46
TERSEC70	b		— .0819***
	Beta		— .1326
	t		—2.45
Intercept		— .0685	— .0599
Adjusted R^2		.949	.951
n		111	111

*see notes to Table 2.

ses. Instead, the analyses pertaining to the labor force supported the analyses which focused on the relationship of urbanization to development. Both procedures provided evidence that increases in overurbanization are accompanied by less economic growth.

Discussion

The findings presented here corroborate the hypothesis that penetration by foreign capital leads to overurbanization, defined either as a labor force imbalance or as an imbalance in the urbanization/development relationship. The findings extend and support earlier research linking dependence to the structure of the labor force. Using a dependence measure which indicates 1967 levels in stock of foreign investments in Third World countries, we have shown that when the relative amount of this stock was greater, relatively increasing levels of overurbanization occurred between the mid-1960s and the mid-1970s. We say "relatively increasing" because, with our regression analysis, what has really been shown is that penetration is positively associated with changes in these measures of overurbanization. The actual changes which are experienced in more dependent, compared to less dependent, countries overall may range, in principle, from increasing more to decreasing less.

But do these structural features really present a problem for LDCs? After all, there are many who would argue that the increasing size of the service labor sector is a healthy sign. In the absence of the detailed data that would be required to show that this sector really is overrepresentative of workers in "marginal" occupations, we had to entertain the possibility that this view is correct. Perhaps finding positive effects of foreign capital penetration on the relative size of this sector would be an indication that the infusion of capital into the Third World is accompanied by change toward the postindustrial labor structure enjoyed in the highly-developed countries.

Our findings leave us very skeptical that this is the case. Higher levels of services-to-manufacturing employment were not associated with economic growth (no statistical relationship), and increases in these levels over the time period studied were accompanied by slower growth or stagnation (negative relationship). Furthermore, when we examined a more broadly defined labor imbalance, the ratio of tertiary to secondary employment, we found that both levels and changes in levels have estimated negative effects on economic growth in the 1960s. Again, we must point out that the significance of the growing service sector may be quite different at other levels of analysis. Within countries, entry into the informal sector or the service sector may represent routes to upward mobility for large numbers of individuals. But as a structural feature of the economies of Third World countries, it appears to represent quite the opposite. To the extent that economic growth is limited, it is likely that overall mobility—in terms of increases in average national income and shifts in the shape of the occupational structure—will also be thereby limited.

Similarly, the level of urbanization/development imbalance has no effect on economic growth, but changes in levels of this dimension of overurbanization impede economic development in a manner consistent with our hypothesis. Increases in overurbanization (or the failure to reduce the degree of overurbani-

zation) are associated with slower economic growth during 1965–75. We are left, then, with a model which links penetration by foreign capital to increases in overurbanization and service/manufacturing imbalance, and these increases are, in turn, seen as ways in which dependence may impede economic growth.

Finally, we must end with the usual cautions and call for further research. Among the most useful endeavors would be the compilation and analysis of much more detailed labor force data. We need to be able to distinguish between the vendors of single sticks of chewing gum and professional bureaucrats for many more countries than we now can. But even with the kind of aggregate data now available, there is much work to be done. If these same labor force measures were available for more countries, we would be able to proceed with the necessary analysis of the relationship between the two indicators of structural imbalance which we are examining. Hypertrophication of the tertiary and overurbanization are not always clearly distinguished from one another in the literature. We have discussed them and examined their effects as if they were somewhat distinct, but it is very likely that they are in many ways redundant. A detailed description of the structure of the nonagriculural labor force is largely a description of the employed urban population. Unfortunately, the available labor force data do not cover a large enough number of countries to allow us to examine this relationship.

Future research should also examine the role of gender-specific differences in urbanization and nonagricultural employment. Dependence in the world economy has been hypothesized to undermine the employment status of women in peripheral economies (e.g., Ward, 1982). Sex differences in labor force participation may mediate some of the dependency effects on economic growth. Of course, it remains to be shown whether such differences are explained by the unique way in which women are incorporated into the urban labor force or by patterns of sex exploitation which transcend the urbanization process. Certainly, women are super-exploited during the development process in rural sectors of Third World economies, as well (c.f., Loutfi, 1980). Furthermore, some feminist scholars suggest that patterns of sex exploitation attributed by others to capitalist development are, in fact, transcendent of any specific mode of production. (Beneria and Sen, 1981).

Finally, work by Lipton (1977), Gilbert and Gugler (1982), Gugler (1982), and others has suggested that overurbanization can be regarded as an outcome of policies favoring the organized interests of economic and political elites who continue to favor urban areas over rural areas. Migration to cities and subsequent service sector and informal sector employment are rational responses to this dualism. If political and economic decision making were to begin to redress the urban/rural inequity, then presumably there would be fewer incentives for migration to cities, and thus less expansion of the relatively unproductive service and informal labor sectors.

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