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HUMAN DEVELOPMENT AND ECONOMIC GROWTH

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Human Development and Economic Growth

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Abstract

Recent literature has contrasted Human Development, described as the ultimate goal of the development process, with economic growth, described as an imperfect proxy for more general welfare, or as a means toward enhanced human development. This debate has broadened the definitions and goals of development but still needs to define the important interrelations between human development (HD) and economic growth (EG). To the extent that greater freedom and capabilities improve economic performance, human development will have an important effect on growth. Similarly, to the extent that increased incomes will increase the range of choices and capabilities enjoyed by households and governments, economic growth will enhance human development. This paper analyzes these relationships and the two-way linkages involved.

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Human Development and Economic Growth

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Recent literature has contrasted Human Development, described as the ultimate goal of the development process, with economic growth, described as an imperfect proxy for more general welfare, or as a means toward enhanced human development. This debate has broadened the definitions and goals of development but still needs to define the important interrelations between human development (HD) and economic growth (EG). To the extent that greater freedom and capabilities improve economic performance, human development will have an important effect on growth. Similarly, to the extent that increased incomes will increase the range of choices and capabilities enjoyed by households and governments, economic growth will enhance human development. This paper analyzes these relationships and the two-way linkages involved. It will first review some of the theoretical debates on EG/HD linkages, then review the conclusions suggested by empirical analysis. Finally it will examine the policy implications of these linkages. Section II discusses the case for HD and what produces HD. Section III discusses similar issues for EG, and Section IV concludes, analyzing the two-way relationship between them.

II. Growth and its Impact on Human Development

Human development finds its theoretical underpinnings in Sen's capabilities approach which holds "a person's capability to have various functioning vectors and to

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enjoy the corresponding well-being achievements” to be the best indicator of welfare (Sen, 1985). This perspective shifts the analysis of development to the vector of not only attributes (as is the more traditional utilitarian or even the original basic needs view of human welfare, see Streeten, 1979), e.g. income, education, health, but also the vector of possible opportunities available to individuals in a particular state. Naturally, there is a link between the two--these opportunities are affected by certain attributes of the individual: a starving or uneducated person would have fewer choices than a healthy, educated person. Yet the capabilities approach goes far beyond individual attributes to analyze the role of the social environment on human choice and agency: an individual in an open, free society would enjoy a larger set of potential functionings than one in a closed, oppressive society. However, while capabilities make an appealing goal for development, they are notoriously difficult to measure in that the full set of possible human functionings is almost by definition unobservable.

The first major attempt to translate the capabilities approach into a tractable ranking of nations came in the 1990 UNDP Human Development Report. The HDR’s objective was to “capture better the complexity of human life” by providing a quantitative approach to combining various socio-economic indicators into a measure of human development (UNDP 1990). This was in contrast to the perceived prevailing wisdom in development economics, as embodied in the World Development Reports, whose “excessive preoccupation with GNP growth and national income accounts has...supplanted a focus on ends by an obsession with merely the means” (UNDP 1990). Yet the transformation from a normative theory of capabilities into a quantitative variable was by no means an obvious task. The use of life expectancy, literacy, and GDP as

components of a Human Development Index admittedly constitutes a rough proxy and simplification of the original capabilities theory.¹ Notably missing were measures of political freedom and income inequality. Furthermore, any quantitative ranking raises difficult empirical questions, such as accounting for the decreasing marginal utility of income, and the necessarily arbitrary weighting of each component of HD. Nevertheless, the HDRs have had a strong influence on development thinking, causing developing countries to publish their own national-level human development reports and indices and modifying their policies.

Income growth clearly strikes one as the main contributor to *directly* increasing the capabilities of individuals and consequently the human development of a nation since it encapsulates the economy's command over resources (Sen, 2000). For example, while the citizens of the Indian state of Kerala have life expectancies and literacy rates comparable to those of many developed countries, the fact that they cannot enjoy many of the benefits of citizens of such countries (such as better housing, transportation, or entertainment) demonstrates the importance of GDP as an instrument for achieving a wide range of capabilities. However, GDP also has a strong effect on literacy and health outcomes, both through private expenditures and government programs. Thus, insofar as higher incomes facilitate the achievement of other crucial human development objectives, it also has an *indirect* effect on human development.

The impact of economic growth on a nation's human development level, of course, also depends on other conditions of the society. One important component here is the role of the distribution of income, both at a micro level within a household as well as

¹ There is an ongoing debate on the usefulness of the Human Development Index as a measure of welfare. See Srinivasan, 1994 and others.

at a macro level across households. At the micro level there is great potential for a positive causality—individual and household consumption can be an important element in increasing human development and may respond more closely to the real needs of the population than do government programs. However, individual consumption may not always go towards goods which contribute maximally to human development. In societies where women contribute more to family income and have more influence on household decision-making expenditures on human development-oriented goods are likely to be relatively higher. For example, among Gambian households, the larger the proportion of food under women's control, the larger household calorie consumption (Von Braun, 1988). Similarly, in the Philippines it has been shown that consumption of calories and proteins increases with the share of income accruing directly to women (Garcia, 1990). Also see Hoddinot and Haddad (1991) who look at the impact of intra-household income distribution on child welfare.

At a macro level, the distribution of the increased income from economic growth will also have a strong impact on human development. Since poorer households spend a higher proportion of their income on goods which directly promote better health and education, economic growth whose benefits are directed more towards the poor will have a greater impact on human development, via increased food expenditure as well as on education. For example, Birdsall, Ross and Sabot (1995) show that if the distribution of income in Brazil were as equal as that in Malaysia, school enrollments among poor children would be 40% higher.

The effects of economic growth on government human development expenditures are bound to complement private expenditure channels. In fact, Anand and Ravallion

(1993) find that most of the effects of economic growth on HD are likely to flow through government budgetary expenditures, central or local. However, the strength of this effect depends entirely on the effectiveness of expenditure targeting and delivery. The government must identify priority sectors such as primary education and health that have the highest potential for HD improvement. Government expenditures for HD should be distributed predominantly to low income groups and areas since it is here that the highest marginal impact will be had. Government must also have the institutional capacity to efficiently allocate these expenditures. Studies by Rajkumar and Swaroop (2002) have demonstrated that the effectiveness of public expenditure is conditional on the quality of governance, with government accountability likely to play an important role. While empirical evidence here is more spotty, theory suggests that a decentralized, locally accountable government system may have advantages in resource allocation and service delivery.

III. Human Development and its Impact on Growth

Human development, in turn, has important effects on economic growth. If a central element of economic growth is allowing agents to discover and develop their comparative advantage, an increase in the capabilities and functionings available to individuals should allow more of them to pursue occupations in which they are most productive. In this sense human development can be seen as the relaxing of constraints which may have interfered with profit maximization. Furthermore, although human development represents a broader concept, many of its elements overlap significantly with the more traditional notion of human capital. Thus, to the extent that human

development is necessarily correlated with human capital and human capital affects the economic growth of a nation, human development is bound to have an impact on economic growth.

More specifically, each of the various components of human development is likely to have a distinct impact on economic growth. Education, for instance, has a strong effect on labour productivity. In agriculture, Birdsall (1993) uses data from Malaysia, Ghana and Peru to show that each extra year of a farmer's schooling is associated with an annual increase in output of 2-5%. In Indonesia, Duflo (2000) estimates an increase in wages of 1.5 to 2.7% for each additional school built per 1,000 children. In addition to its direct effect on productivity, education also affects the rate of innovation and technological improvements. Foster and Rosenzweig (1995) demonstrate that increased education is associated with faster technology adoption in Green Revolution India. Similarly, higher education levels have been shown to increase innovation in businesses in Sri Lanka. In this sense human development may also enter into an Uzawa-Lucas type endogenous growth model as a factor affecting growth rates through its effect on technological change. Statistical analysis of the clothing and engineering industries in Sri Lanka (Deraniyagala, 1995), to cite just one example, showed that the skill and education levels of workers and entrepreneurs were positively related to the rate of technical change of the firm. Education alone, of course, cannot transform an economy. The quantity and quality of investment, domestic and foreign, together with the choice of technology and overall policy environment, constitute other important determinants of economic performance. The quality of private entrepreneurs, of public policy-makers and of investment decisions generally, is bound to be influenced

by the education of both officials and managers; moreover, the volume of both domestic and foreign investment and the rates of total factor productivity will undoubtedly be higher when a system's human capital level is higher.

Health has also demonstrated positive effects on economic growth beyond its inherent desirability as an end in itself. Strauss and Thomas (1998) review a large literature documenting how improvements in health and nutrition improve productivity and incomes. Schultz (2000) finds correlations between height and income in his analysis of data from Ghana, Cote d'Ivoire, Brazil, and Vietnam. A range of labour productivity gains has been observed associated with calorie intake increases in poor countries, (Cornia and Stewart, 1995), including studies of farmers in Sierra Leone (Strauss, 1986), sugar cane workers in Guatemala (Immink and Viteri, 1981), and road construction workers in Kenya (Wolgemuth, Latham, Hall, and Crompton, 1982). In these cases productivity enhancement appears to follow fairly immediately as current intakes of calories or micro-nutrients are increased.

Education and health may also have strong indirect impacts on economic growth through their effect on the distribution of income, and education even more so through its impact on health (for example, Behrman and Wolfe, 1987b provide evidence of the impact of women's education on family health and nutrition). As education and health improve and become more broadly based, low income people are better able to seek out economic opportunities. For example, a study of the relation between schooling, income inequality and poverty in 18 countries of Latin America in the 1980s found that one quarter of the variation in workers' incomes was accounted for by variations in schooling attainment; it concludes that "clearly, education is the variable with the strongest impact

on income equality" (Psacharopoulos et al., 1992). And a more equal distribution of income is known to favor growth for both economic and political economy reasons.

Education may also affect per capita income growth via its impact on the denominator, i.e. population growth. For example, a study of 14 African countries in the mid-1980s showed a negative correlation between female schooling and fertility in almost all countries, with primary education having a negative impact in about half the countries and no significant effects in the other half, while secondary education invariably reduced fertility (Birdsall, Ross and Sabot, 1995); (Jayaraman, 1995); (Strauss and Thomas, 1995); (Thomas, Strauss and Henriques, 1991); (Behrman and Wolfe, 1987a).

IV. The Joint HD/EG Linkages

The two-way relationship between economic growth and human development suggests that nations may enter either into a virtuous cycle of high growth and large gains in human development, or a vicious cycle of low growth and low rates of HD improvement. In these states, levels of EG and HD are mutually reinforcing, either leading towards an upward spiral of development, or a poverty trap. The existence and persistence of these cycles depends on the strengths of the linkages previously cited between EG and HD. Countries may also find themselves in a lop-sided state, at least temporarily, with relatively good growth and relatively poor HD, or vice versa.

There may be various reasons for "economic growth lopsided" nations, i.e. those which have high rates of GDP growth relative to the improvement in human development indicators, including government corruption, low social expenditures, or inequitably

distributed incomes. A recent analysis of such cases raises concerns about the sustainability of this state, e.g., Ranis, Stewart, and Ramirez (2000) find that of the eight EG-lopsided nations in 1960-70, all eight moved to the vicious cycle of low EG/low HD. These results suggest that good economic growth not accompanied by increases in human development may prove to be ultimately unsustainable.

“Human development lopsided” nations, on the other hand, fared better over the last forty years, with four nations moving into virtuous cycles and four others moving into vicious cycles. In the 50% favorable cases, early progress in human development meant that they were able to take advantage of policy reforms to generate growth. Thus, a high level of human development early in a nation’s history can, with the right policy decisions, translate into a virtuous cycle of good growth and human development supporting each other. The policies involved, such as encouraging higher levels of investment, technology change and an improved distribution of income, can leverage the successes in human development into sustainable economic gains.

This contrast clearly points to an important conclusion for development sequencing, i.e., human development seems to be a necessary prerequisite for long-term sustainable growth. Human development may, moreover, exhibit threshold effects, in the sense that nations must attain a certain HD level before future economic growth becomes sustainable. This emphasis on levels differentiates human development from human capital in endogenous growth theory. While *changes* in human capital and labour quality matter most for endogenous growth, it is the *level* of human development that determines a nation’s sustainable growth path.

The above findings also have strong implications for government policy. If HD improvements are indeed a precondition for sustainable EG, government policy and public funding may be necessary to move a nation above the HD threshold level. Nations stuck in vicious cycles, or low-HD poverty traps may need targeted government investments to meet the fixed costs of HD improvements that will lead to later economic growth. These fixed cost investments may include schools, hospitals, and the necessary governance improvements to effectively implement investment projects.

The crucial lesson that emerges is that the old-fashioned view of “grow first and worry about human development later” is not supported by the evidence. Improving levels of education and health should have priority or at least move together with efforts to directly enhance growth.

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